Summary of 2016 Reconnaissance Fish Passage Surveys

During February and March of 2016, 179 Reconnaissance Fish Passage Surveys were conducted on state highways in Butte and Sacramento counties. 138 sites were surveyed on Highway 99 in Butte County, 24 sites were surveyed on Highway 99 in Sacramento County, and 17 sites were surveyed on Highway 104 in Sacramento County. The Reconnaissance Surveys were performed in accordance with the California Department of Transportation's (Caltrans') Reconnaissance Fish Passage Assessment Instructions and Procedures manual¹. 25 of the 179 sites (14%) were identified as requiring a Detailed Fish Passage Survey.

The primary objective of the Reconnaissance Survey is to determine whether any given highway-stream crossing may potentially be an anadromous fish-bearing stream based on characteristics of the stream and the crossing. The Reconnaissance Survey includes both field and office activities. Field activities include documenting whether a natural stream channel is present, whether the site is primarily used for conveying stormwater and/or is a concrete-lined floodway, and evaluating basic stream channel width and gradient criteria. In addition to documenting characteristics of the crossing and the stream channel at each survey site, aerial imagery also is reviewed and a literature review is conducted to identify streams that may currently support or historically supported anadromous fish, in order to support a determination on whether further surveying effort is required, and to assist in prioritization of future survey efforts.

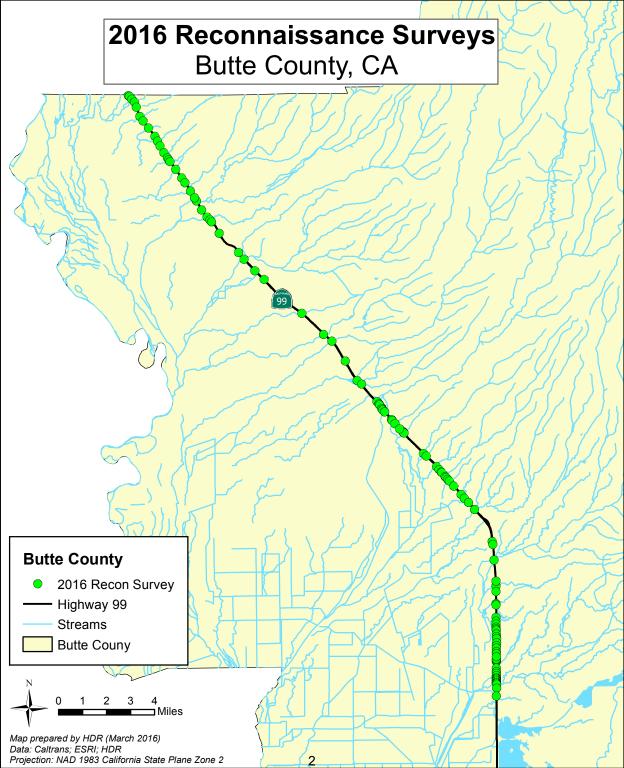
Reconnaissance Survey sites that do not meet the basic criteria for potentially being an anadromous fish-bearing stream or are known to have not historically supported anadromous salmonids (e.g., due to a natural migration barrier downstream of the site) are identified as not needing a Detailed Survey, as defined in Caltrans' Detailed Fish Passage Assessment Data Collection Instructions and Procedures manual². Sites identified as needing a Detailed Survey require additional information to be collected during the Reconnaissance Survey, including information on: (1) land ownership upstream and downstream of the site (to the extent possible); (2) whether the site is accessible via the highway for conducting a Detailed Survey; (3) whether vegetation removal is required to conduct a Detailed Survey; and (4) whether the crossing is classified as a confined space. Up to four photographs are taken at each surveyed site, to the extent possible, including: (1) upstream of the crossing looking upstream; (2) upstream of the crossing looking downstream; (3) downstream of the crossing looking upstream; and (4) downstream of the crossing looking downstream.

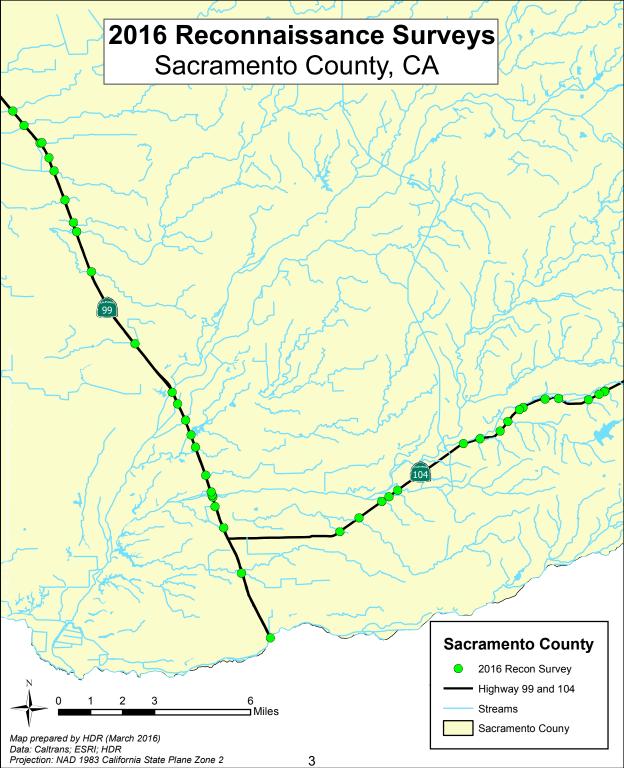
The results of the Reconnaissance Surveys performed during February and March of 2016 in Butte and Sacramento counties are summarized in this report by county, route and postmile. For each surveyed site, the information collected during the Reconnaissance Survey is displayed, in addition to basic hydrologic unit classifications for the site, the stream name (if available), whether the site historically supported anadromous salmonids (if known), and photographs of the site. If a determination was made that a site requires a Detailed Survey, additional information is displayed, including land ownership information, site accessibility for conducting a Detailed Survey, whether vegetation removal is needed to conduct a Detailed Survey, and whether the site may be a confined space.

Reconnaissance Surveys conducted in Butte County and in Sacramento County are shown on the following maps.

¹ California Department of Transportation (Caltrans). 2007. Reconnaissance Fish Passage Assessment Instructions and Procedures. Prepared by HDR Engineering, Inc.

² California Department of Transportation (Caltrans). 2007. Detailed Fish Passage Assessment Data Collection Instructions and Procedures. Prepared by HDR Engineering, Inc.





RECONNAISSANCE SURVEY INFORMATION				
County: BUT	Route: 99	PM: 0.01		
	Survey Information			
Date 2/9/2016 Time	15:00 Agency Performing Survey HDR			
Data Recorder JV	(24 hr. clock) Survey Team JV, BS			
	Site Information			
	GPS Data			
Longitude -121.67272139	Latitude 39.3051225			
GPS HDOP 2.53	Loc. of GPS Point above outlet PM			
	Hydrologic Information			
Stream Name Line Canal	Source: sign at site			
Basin Sutter Bypass	Quad Name (7.5') GRIDLEY			
USGS Hydrologic Unit LOWER_FEATHE	CalWater Unit HA Sutter Bypass			
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Sutter Bypass			
	Natural Stream Channel?			
Is there a definable channel upstream of culv	ert? Yes			
Is the primary function for storm water runoff				
Is the waterway a concrete-lined flood control				
	Potential Fish Bearing Stream?			
	-			
Does the site contain an active channel width				
Is the stream gradient < 20%?	Yes			
	Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (S	Steelhead)			
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead	Historia Anadremena Pessh?			
	Historic Anadromous Reach?			
<u> </u>	ng supported an anadromous fish population?			
Source Aerial imagery; irrigation cana	al with no upstream connectivity to a natural stream Crossing Type			
Crossing Type Culvert	ID 120101			
General Description: concrete double bay bo	<u> </u>			
Contral Description. Portorete double bay be	Photos			
3.1 Upstream Looking Upstream - Photo I	BUT_99_0.01_3.1_2-09-2016			
3.2 Upstream Looking Downstream - Photo I		\dashv		
3.3 Downstream Looking Upstream - Photo I		=		
3.4 Downstream Looking Downstream - Pho		<u> </u>		
2 20miologiii 20miologiii 1110	<u> </u>			
Description of the last of the	Detailed Survey Required?			
Detailed Survey Required?: No				

County: Butte Route: 99 Postmile: 0.01 Survey Date: 02/09/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION					
County: BUT Route: 99	PM: 0.52				
Survey Information					
Date 2/9/2016 Time 15:05 Agency Performing Survey	HDR				
Data Recorder JV (24 hr. clock) Survey Team JV, BS					
Site Information					
GPS Data					
Longitude -121.67520983 Latitude 39.31229601					
GPS HDOP 1.88 Loc. of GPS Point above inlet	PM				
Hydrologic Information					
Stream Name unkonwn Source:					
Basin Sutter Bypass Quad Name (7.5') GRIDLEY					
USGS Hydrologic Unit LOWER_FEATHER CalWater Unit HA Sutter Bypass					
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Sutter Bypass					
Natural Stream Channel?					
Is there a definable channel upstream of culvert? Yes					
Is the primary function for storm water runoff or road drainage?:					
·					
Potential Fish Bearing Stream?					
Does the site contain an active channel width >2 feet?					
Is the stream gradient < 20%?					
Salmonid ESU/DPS					
ESU (Chinook and Coho Salmon) or DPS (Steelhead)					
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chinook					
Central Valley Steelhead					
Historic Anadromous Reach?					
Has the stream reach upstream of the crossing supported an anadromous fish population?					
Source Aerial imagery; irrigation canal with no upstream connectivity to a natural stream					
Crossing Type					
Crossing Type Culvert ID					
General Description: concrete pipe culvert					
Photos					
3.1 Upstream Looking Upstream - Photo I BUT_99_0.52_3.1_2-09-2016					
3.2 Upstream Looking Downstream - Photo I BUT_99_0.52_3.2_2-09-2016					
3.3 Downstream Looking Upstream - Photo ID BUT_99_0.52_3.3_2-09-2016					
3.4 Downstream Looking Downstream - Photo ID BUT_99_0.52_3.4_2-09-2016					
Detailed Survey Required?					
Detailed Survey Required?: No					
Report Date 03-15-2016					

County: Butte Route: 99 Postmile: 0.52 Survey Date: 02/09/2016



RECONNAISSANCE SURVEY INFORMATION	
County: BUT Route: 99	PM: 2.30
Survey Information	
Date 2/9/2016 Time 15:40 Agency Performing Survey HDR	
Data Recorder JV (24 hr. clock) Survey Team JV, BS	
Site Information	
GPS Data	
Longitude -121.68371829 Latitude 39.33703298	
GPS HDOP 1.99 Loc. of GPS Point above inlet P	M
Hydrologic Information	
Stream Name unknown Source:	
Basin Sutter Bypass Quad Name (7.5') GRIDLEY	
USGS Hydrologic Unit LOWER_FEATHER CalWater Unit HA Sutter Bypass	
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Sutter Bypass	
Natural Stream Channel?	
Is there a definable channel upstream of culvert? Yes	
Is the primary function for storm water runoff or road drainage?:	
Is the waterway a concrete-lined flood control channel?	
Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 feet? Yes	
Is the stream gradient < 20%? Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhead)	
Central Valley Spring-Run Chinook	
Central Valley Fall_Late Fall-Run Chinook	
Central Valley Steelhead	
Historic Anadromous Reach?	
Has the stream reach upstream of the crossing supported an anadromous fish population?	
Source Aerial imagery; irrigation canal with no upstream connectivity to a natural stream	
Crossing Type	
Crossing Type Culvert ID	
General Description: concrete box culvert; juvenile pikeminnow observed in culvert; this is an irrigation canal	
Photos	
3.1 Upstream Looking Upstream - Photo I BUT_99_2.30_3.1_2-09-2016	
3.2 Upstream Looking Downstream - Photo I BUT_99_2.30_3.2_2-09-2016	
3.3 Downstream Looking Upstream - Photo ID BUT_99_2.30_3.3_2-09-2016	$\overline{\Box}$
3.4 Downstream Looking Downstream - Photo ID BUT_99_2.30_3.4_2-09-2016	
Detailed Survey Required?	
Detailed Survey Required?: No	
Report Date 03-15-2016	

County: Butte Route: 99 Postmile: 2.30 Survey Date: 02/09/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



	RECONNAISSAN	CE SURVEY IN	IFORMATION		
County: BUT		ute: 99			PM: 3.68
	Sur	rvey Information			
Date 2/9/2016	Time 15:30	Agency Performing	g Survey	HDR]
Data Recorder JV	(24 hr. clock)	Survey Team J	V, BS		
	S	ite Information			
		GPS Data			
Longitude -121.68	3782539 Latitude	39.35682275			
GPS HDOP	2.06 Loc. of GPS Point	above inlet		PM	
	Нус	Irologic Information			
Stream Name unkown		S	ource:		
Basin Sutter B	ypass	Quad Name (7.5')	GRIDLEY		
USGS Hydrologic Unit LOWER	_FEATHER	CalWater Unit HA	Sutter Bypass		
CalWater Unit HU COLUSA	A BASIN	CalWater Unit HSA	Sutter Bypass		
	Natu	ural Stream Channel?			
Is there a definable channel upstrea	am of culvert?	Yes			
Is the primary function for storm wat		No	_		
Is the waterway a concrete-lined flo	_	No	=		
to the waterway a controlle linea no			2		
		ial Fish Bearing Stream	7		
Does the site contain an active cha	nnel width >2 feet?	Yes	<u>]</u> ¬		
Is the stream gradient < 20%?	S	Salmonid ESU/DPS	<u> </u>		
ESU (Chinook and Coho Salmon)		200010			
Central Valley Spring-Run Chinook	<u> </u>				
Central Valley Fall_Late Fall-Run C					
Central Valley Steelhead					
	Histori	c Anadromous Reach?			
Has the stream reach upstream of t	he crossing supported an anad	romous fish population?	Unknown		
Source Tributary to Morriso		, . 			
		Crossing Type			
Crossing Type Culvert		ID			
General Description: concrete pipe	e culvert in concrete form; the o	utlet was on private prope	erty behind a fence		
		Photos			
3.1 Upstream Looking Upstream - I	Photo I BUT_99_3.6	8_3.1_2-09-2016			
3.2 Upstream Looking Downstream	n - Photo I BUT_99_3.6	8_3.2_2-09-2016			
3.3 Downstream Looking Upstream	n - Photo ID N/A				
3.4 Downstream Looking Downstre	eam - Photo ID BUT_99_3.6	68_3.4_2-09-2016			
	Detaile	ed Survey Required	l?		
Detailed Survey Required?:	Yes				
Report Date 03-15-2016					

RECONNAISSANCE SURVEY INFORMATION					
County:			Route: 9		PM: 3.68
			Access Inf	formation	
Land Ownershi	p:				
Upstrean Downstrean		Owner(s) Agriculture Owner(s) unknown	and commerc	rial properties	
Accessible fro	m road?				
	Upst	ream? Yes	Limitations	Fenced	
	Downst	ream? Yes	Limitations	Fenced	
Vegetation Re	moval Required?				
Upstream?	No	(If "Yes", comment	and take photo	ograph)	
Photo ID		Comments			
Downstream?	Unknown	(If "Yes", comment	and take photo	ograph)	
Photo ID		Comments			
Maintenance A	Assistance Required	?			
Upstream?	No	(If "Yes", comment	and take photo	ograph)	
Photo ID		Comments			
Downstream?	Unknown	(If "Yes", comment	and take photo	ograph)	
Photo ID		Comments			
		Conf	ined Space	e Assessment	
If answer is "N DO NOT ENTE		stions below, site must h	nave confined	spaces equipment for surveying.	
Is culvert diar	meter > 60"?		No		
Can you see a	all the way through the	end of the culvert?	No		

Can you feel a breeze through the culvert?

County: Butte Route: 99 Postmile: 3.68 Survey Date: 02/09/2016



RECON	NAISSANCE SURVEY INFORMATION	
County: BUT	Route: 99	PM: 3.75
	Survey Information	
Date 2/9/2016 Time 14	4:30 Agency Performing Survey HI	DR
Data Recorder JV (24 h	r. clock) Survey Team JV, BS	
	Site Information	
	GPS Data	
Longitude -121.68809041 Latit	ude 39.35785431	
GPS HDOP 2.1 Loc.	of GPS Point above outlet	PM
	Hydrologic Information	
Stream Name unknown	Source:	
Basin Sutter Bypass	Quad Name (7.5') GRIDLEY	
USGS Hydrologic Unit LOWER_FEATHER	CalWater Unit HA Sutter Bypass	
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Sutter Bypass	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	Yes	
·		
Is the primary function for storm water runoff or road		
Is the waterway a concrete-lined flood control channels	nel? No	
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fe	eet? Yes	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelh	ead)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing sup	pported an anadromous fish population?	
Source Aerial imagery; irrigation canal with	no upstream connectivity to a natural stream	
	Crossing Type	
Crossing Type Culvert	ID	
General Description: concrete box culvert; this is a	an irrigation canal	
	Photos	
3.1 Upstream Looking Upstream - Photo I	BUT_99_3.75_3.1_2-09-2016	
3.2 Upstream Looking Downstream - Photo I	BUT_99_3.75_3.2_2-09-2016	
3.3 Downstream Looking Upstream - Photo ID	BUT_99_3.75_3.3_2-09-2016	
3.4 Downstream Looking Downstream - Photo ID	BUT_99_3.75_3.4_2-09-2016	
	Detailed Survey Required?	
Detailed Survey Required?: No		

County: Butte Route: 99 Postmile: 3.75 Survey Date: 02/09/2016

Upstream Looking Upstream

Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONN	IAISSANCE SURVEY INFORMATION	
County: BUT	Route: 99	PM: 4.63
	Survey Information	
Date 2/9/2016 Time 14	:15 Agency Performing Survey H	DR
Data Recorder JV (24 hr	Survey Team JV, BS	
	Site Information	
	GPS Data	
Longitude -121.68806306 Latitu	ude 39.37051896	
GPS HDOP 2.93 Loc.	of GPS Point above inlet	PM
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Side	Quad Name (7.5') GRIDLEY	
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	Yes	
Is the primary function for storm water runoff or road		
Is the waterway a concrete-lined flood control chann	····	
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fee	et? Yes	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing supp	· · · · · · · · · · · · · · · · · · ·	
Source Aerial imagery; irrigation canal with	no upstream connectivity to a natural stream	
	Crossing Type	
Crossing Type Culvert General Description: concrete double bay box culv	ID	
General Description. Concrete double bay box curv		
2.4 Upotroom Locking Upotroom Photo I	Photos	
3.1 Upstream Looking Upstream - Photo I	BUT_99_4.63_3.1_2-09-2016	
3.2 Upstream Looking Downstream - Photo I	BUT_99_4.63_3.2_2-09-2016	<u></u>
3.3 Downstream Looking Upstream - Photo ID	BUT_99_4.63_3.3_2-09-2016 BUT_99_4.63_3.4_2-09-2016	<u></u>
3.4 Downstream Looking Downstream - Photo ID		
	Detailed Survey Required?	
Detailed Survey Required?: No	_	

County: Butte Route: 99 Postmile: 4.63 Survey Date: 02/09/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION							
County: BUT	Ro	ute: 99				PM:	4.65
	Sur	rvey Information	1				
Date 3/3/2016 Time	10:49	Agency Perfor	ming Survey		HDR		
Data Recorder NO	(24 hr. clock)	Survey Team	NO, JV				
	S	ite Information					
		GPS Data					
Longitude -121.68744	Latitude	39.370	62				
GPS HDOP 1.3	Loc. of GPS Point	above inlet			PM		
	Нус	drologic Information					
Stream Name unknown	-		Source:				
Basin		Quad Name (7.5')					
USGS Hydrologic Unit		CalWater Unit HA					
CalWater Unit HU		CalWater Unit HSA					
	Natu	ural Stream Channe	l?				
Is there a definable channel upstream of cu	lvert?	Yes					
Is the primary function for storm water runo	ff or road drainage?:	No					
Is the waterway a concrete-lined flood cont	ol channel?	No					
	Potenti	ial Fish Bearing Str	eam?				
Does the site contain an active channel wid	lth >2 feet?	Yes					
Is the stream gradient < 20%?		Yes					
	S	Salmonid ESU/DPS					
ESU (Chinook and Coho Salmon) or DPS	<u> </u>						
	Histori	c Anadromous Rea	ch?				
Has the stream reach upstream of the cross				No			
Source Aerial imagery; irrigation ca	nal with no upstream co	·	al stream				
		Crossing Type					
Crossing Type Culvert	()	ID					
General Description: Concrete pipe culver	t in a concrete form. Mo		canal.				
2.4 Unataran Laglia - Unataran Birat	DUT OO 1	Photos			1		
3.1 Upstream Looking Upstream - Photo I	BUT_99_4.6						
3.2 Upstream Looking Downstream - Photo	-						
3.3 Downstream Looking Upstream - Photo3.4 Downstream Looking Downstream - Pl							
5.1 Downstroam Looking Downstroam - 11	<u> </u>		rod?				
Detailed Survey Required?	Detalle	ed Survey Requ	reu?				

County: Butte Route: 99 Postmile: 4.65 Survey Date: 03/03/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream

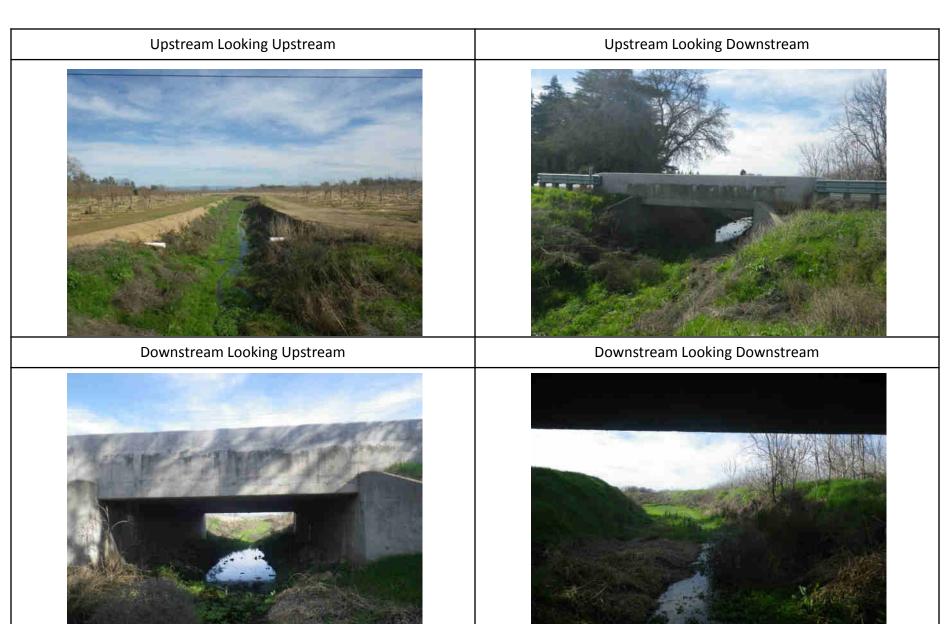


Downstream Looking Downstream



RECONNAISS	ANCE SURVEY INFORMATION	
County: BUT	Route: 99	PM: 5.34
	Survey Information	
Date 2/9/2016 Time 14:00	Agency Performing Survey HDR	
Data Recorder Jv (24 hr. clock)	Survey Team Jv, BS	
	Site Information	
	GPS Data	
Longitude -121.68805332 Latitude	39.38085474	
GPS HDOP 3.01 Loc. of GPS P	Point above outlet PM	
	Hydrologic Information	
Stream Name Cattail Slough	Source:	
Basin East Side	Quad Name (7.5') BIGGS	
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	\Box
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	\Box
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	Yes	
Is the primary function for storm water runoff or road drainage		
Is the waterway a concrete-lined flood control channel?	No	
P	otential Fish Bearing Stream?	
Does the site contain an active channel width >2 feet?	Yes	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhead)		
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
Н	listoric Anadromous Reach?	
Has the stream reach upstream of the crossing supported an	anadromous fish population? Unknown	
Source		
	Crossing Type	
Crossing Type bridge w/o potential passage constrain		
General Description: concrete bridge with no passage const	traints	
	Photos	
3.1 Upstream Looking Upstream - Photo I BUT_9	9_5.34_3.1_2-09-2016	
3.2 Upstream Looking Downstream - Photo I BUT_9	9_5.34_3.2_2-09-2016	
3.3 Downstream Looking Upstream - Photo ID BUT_9	9_5.34_3.3_2-09-2016	
3.4 Downstream Looking Downstream - Photo ID BUT_9	99_5.34_3.4_2-09-2016	
De	etailed Survey Required?	
Detailed Survey Required?: No		
Report Date 03-15-2016		

County: Butte Route: 99 Postmile: 5.34 Survey Date: 02/09/2016



RECONNAISSANCE SURVEY INFORMATION					
County: BUT Route: 99 PM: 5.64					
Survey Information					
Date 2/9/2016 Time 13:40 Agency Performing Survey HDR					
Data Recorder JV (24 hr. clock) Survey Team JV, BS					
Site Information					
GPS Data					
Longitude -121.68814198 Latitude 39.38516386					
GPS HDOP 2.16 Loc. of GPS Point above outlet PM					
Hydrologic Information					
Stream Name unknown Source:					
Basin East Side Quad Name (7.5') BIGGS					
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin					
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin					
Natural Stream Channel?					
Is there a definable channel upstream of culvert? Yes					
Is the primary function for storm water runoff or road drainage?: No					
Is the waterway a concrete-lined flood control channel?					
Potential Fish Bearing Stream?					
Does the site contain an active channel width >2 feet?					
Is the stream gradient < 20%? Yes Yes					
Salmonid ESU/DPS					
ESU (Chinook and Coho Salmon) or DPS (Steelhead)					
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chinook					
Central Valley Steelhead					
Historic Anadromous Reach?					
Has the stream reach upstream of the crossing supported an anadromous fish population?					
Source Aerial imagery; irrigation canal with no upstream connectivity to a natural stream					
Crossing Type					
Crossing Type Culvert ID General Description: double concrete pipe culvert in concrete form; this is an irrigation canal					
Photos 2.1 Unetroom Locking Unetroom Photo I. PUT 00 5 64 2.4 2.00 2046					
3.1 Upstream Looking Upstream - Photo I BUT_99_5.64_3.1_2-09-2016 BUT_99_5.64_3.1_2-09-2016					
3.2 Upstream Looking Downstream - Photo I BUT_99_5.64_3.1_2-09-2016					
3.3 Downstream Looking Upstream - Photo ID BUT_99_5.64_3.1_2-09-2016 3.4 Downstream Looking Downstream - Photo ID DUT_99_5.64_3.1_2-09-2016					
3.4 Downstream Looking Downstream - Photo ID BUT_99_5.64_3.1_2-09-2016					
Detailed Survey Required?					
Detailed Survey Required?: No					

County: Butte Route: 99 Postmile: 5.64 Survey Date: 02/09/2016

Upstream Looking Upstream

Downstream Looking Upstream



Upstream Looking Downstream

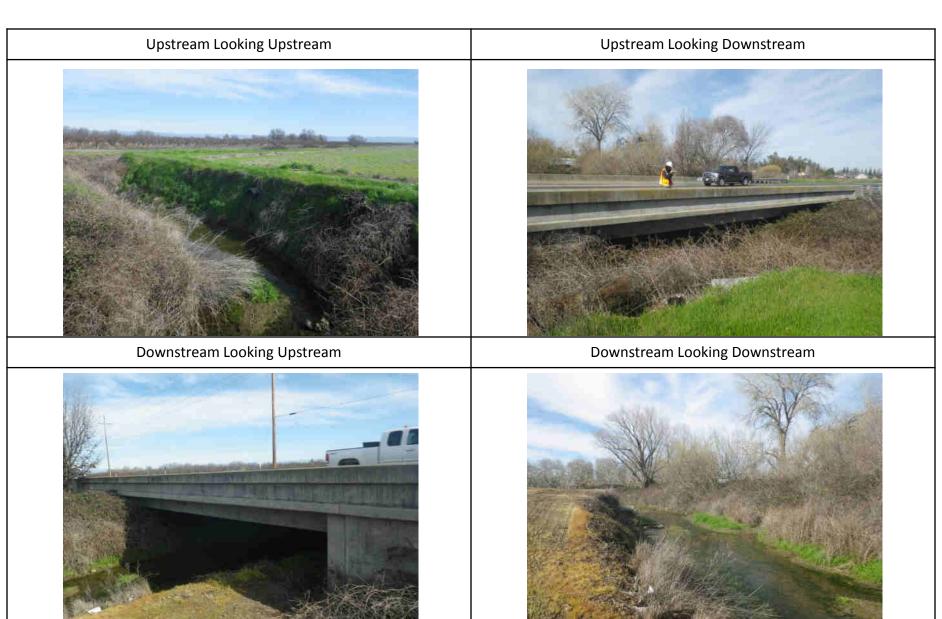


Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION				
County: BUT Route: 99 PM: 6.11				
Survey Information				
Date 2/9/2016 Time 11:30 Agency Performing Survey HDR				
Data Recorder JV (24 hr. clock) Survey Team Jv, BS	-			
Site Information				
GPS Data				
Longitude -121.68811485 Latitude 39.39213636				
GPS HDOP 2.15 Loc. of GPS Point above outlet PM				
Hydrologic Information				
Stream Name Drainage Canal Source: sign at site				
Basin East Side Quad Name (7.5') BIGGS				
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin				
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin				
Natural Stream Channel?				
Is there a definable channel upstream of culvert?				
Is the primary function for storm water runoff or road drainage?:				
Is the waterway a concrete-lined flood control channel?				
Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 feet?				
Is the stream gradient < 20%?				
Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhead)				
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead	_			
Historic Anadromous Reach?				
Has the stream reach upstream of the crossing supported an anadromous fish population? Unknown				
Source				
Crossing Type				
Crossing Type bridge w/o potential passage constraints ID 120002				
General Description: concrete bridge with no passage constraints				
Photos				
3.1 Upstream Looking Upstream - Photo I BUT_99_6.11_3.1_2-09-2016				
3.2 Upstream Looking Downstream - Photo I BUT_99_6.11_3.2_2-09-2016				
3.3 Downstream Looking Upstream - Photo ID BUT_99_6.11_3.3_2-09-2016				
3.4 Downstream Looking Downstream - Photo ID BUT_99_6.11_3.4_2-09-2016				
Detailed Survey Required?				
Detailed Survey Required?: No				

County: Butte Route: 99 Postmile: 6.11 Survey Date: 02/09/2016



RECONNAISSANCE SURVEY INFORMATION					
County: BUT Route: 99 PM: 6.	60				
Survey Information					
Date 2/9/2016 Time 12:05 Agency Performing Survey HDR					
Data Recorder JV (24 hr. clock) Survey Team JV, BS					
Site Information					
GPS Data					
Longitude -121.68828827 Latitude 39.39969818					
GPS HDOP 3.33 Loc. of GPS Point above outlet PM					
Hydrologic Information					
Stream Name unkown Source:					
Basin East Side Quad Name (7.5') BIGGS					
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin					
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin					
Natural Stream Channel?					
Is there a definable channel upstream of culvert?					
Is the primary function for storm water runoff or road drainage?: No					
Is the waterway a concrete-lined flood control channel?					
Potential Fish Bearing Stream?					
Does the site contain an active channel width >2 feet?					
Is the stream gradient < 20%? Yes Yes					
Salmonid ESU/DPS					
ESU (Chinook and Coho Salmon) or DPS (Steelhead)					
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chinook					
Central Valley Steelhead					
Historic Anadromous Reach?					
Has the stream reach upstream of the crossing supported an anadromous fish population?					
Source Aerial imagery; irrigation canal with no upstream connectivity to a natural stream					
Crossing Type					
Crossing Type Culvert ID					
General Description: concrete box culvert; no PM at site so PM is an estimation; this is a irrigation canal					
Photos					
3.1 Upstream Looking Upstream - Photo I BUT_99_6.60_3.1_2-09-2016					
3.2 Upstream Looking Downstream - Photo I BUT_99_6.60_3.2_2-09-2016					
3.3 Downstream Looking Upstream - Photo ID BUT_99_6.60_3.3_2-09-2016					
3.4 Downstream Looking Downstream - Photo ID BUT_99_6.60_3.4_2-09-2016					
Detailed Survey Required?					
Detailed Survey Required?: No					

County: Butte Route: 99 Postmile: 6.60 Survey Date: 02/09/2016

Upstream Looking Upstream



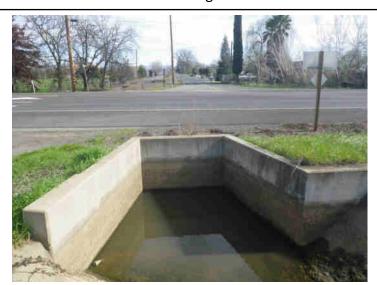
Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT Route: 99	PM: 6.90		
Survey Information			
Date 2/9/2016 Time 11:45 Agency Performing Survey HDR			
Data Recorder JV (24 hr. clock) Survey Team JV, BS			
Site Information			
GPS Data			
Longitude -121.68769689 Latitude 39.40342814			
	PM		
Hydrologic Information			
Stream Name unkown Source:			
Basin East Side Quad Name (7.5') BIGGS			
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin			
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin			
Natural Stream Channel?			
Is there a definable channel upstream of culvert?			
Is the primary function for storm water runoff or road drainage?:			
Is the waterway a concrete-lined flood control channel?			
Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 feet? Yes Yes			
Is the stream gradient < 20%? Yes Solmanid ESUADE			
Salmonid ESU/DPS ESU (Chinook and Coho Salmon) or DPS (Steelhead)			
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
Historic Anadromous Reach?			
Has the stream reach upstream of the crossing supported an anadromous fish population?			
Source Aerial imagery; irrigation canal with no upstream connectivity to a natural stream			
Crossing Type			
Crossing Type Culvert ID			
General Description: concrete box culvert; this is likely an irrigation canal			
Photos			
3.1 Upstream Looking Upstream - Photo I BUT_99_6.90_3.1_2-09-2016			
3.2 Upstream Looking Downstream - Photo I BUT_99_6.90_3.2_2-09-2016			
3.3 Downstream Looking Upstream - Photo ID BUT_99_6.90_3.3_2-09-2016			
3.4 Downstream Looking Downstream - Photo ID BUT_99_6.90_3.4_2-09-2016			
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 6.90 Survey Date: 02/09/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION				
County: BUT Route: 99	PM: 7.40			
Survey Information				
Date 2/9/2016 Time 10:15 Agency Performing Survey HDR				
Data Recorder JV (24 hr. clock) Survey Team Jv, BS				
Site Information				
GPS Data				
Longitude -121.68796403 Latitude 39.41044296				
GPS HDOP 2.08 Loc. of GPS Point above inlet PM				
Hydrologic Information				
Stream Name unknown Source:				
Basin East Side Quad Name (7.5') BIGGS				
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin				
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin				
Natural Stream Channel?				
Is there a definable channel upstream of culvert?				
Is the primary function for storm water runoff or road drainage?:				
Is the waterway a concrete-lined flood control channel?				
Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 feet?				
Is the stream gradient < 20%?				
Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhead)				
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead Historia Anadramous Bossh?				
Historic Anadromous Reach?				
Has the stream reach upstream of the crossing supported an anadromous fish population? No No				
Source Aerial imagery; irrigation canal with no upstream connectivity to a natural stream Crossing Type				
Crossing Type Culvert ID				
General Description: CSP culvert; this is an irrigation				
Photos				
3.1 Upstream Looking Upstream - Photo I BUT_99_7.40_3.1_2-09-2016				
3.2 Upstream Looking Downstream - Photo I BUT_99_7.40_3.2_2-09-2016				
3.3 Downstream Looking Upstream - Photo ID BUT_99_7.40_3.3_2-09-2016 BUT_99_7.40_3.3_2-09-2016				
3.4 Downstream Looking Downstream - Photo ID BUT_99_7.40_3.4_2-09-2016 BUT_99_7.40_3.4_2-09-2016				
Detailed Survey Required?				
Detailed Survey Required?: No				

County: Butte Route: 99 Postmile: 7.40 Survey Date: 02/09/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



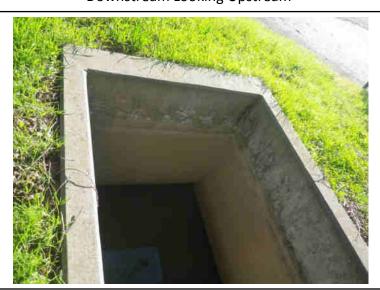
RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 7.41	
	Survey Information		
Date 2/9/2016 Time 10	:00 Agency Performing Survey	HDR	
Data Recorder JV (24 hr	. clock) Survey Team JV, BS		
	Site Information		
	GPS Data		
Longitude -121.68790207 Latitu	de 39.41056543		
GPS HDOP 2.47 Loc.	of GPS Point above inlet	PM	
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5') BIGGS		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
le there a definable channel unattract of out to #2	Natural Stream Channel? Yes		
Is there a definable channel upstream of culvert?			
Is the primary function for storm water runoff or road			
Is the waterway a concrete-lined flood control chann	el? No		
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fee	et? Yes		
Is the stream gradient < 20%?	Yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supp	ported an anadromous fish population?]	
Source Aerial imagery; irrigation canal with	no upstream connectivity to a natural stream		
Crossing Type			
Crossing Type Culvert	ID		
General Description: concrete box culvert; this is a	n irrigation canal; no postmile present so the postmile is an est	timate	
	Photos		
3.1 Upstream Looking Upstream - Photo I	BUT_99_7.41_3.1_2-09-2016		
3.2 Upstream Looking Downstream - Photo I	BUT_99_7.41_3.2_2-09-2016		
3.3 Downstream Looking Upstream - Photo ID	BUT_99_7.41_3.3_2-09-2016		
3.4 Downstream Looking Downstream - Photo ID	BUT_99_7.41_3.4_2-09-2016	_	
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 7.41 Survey Date: 02/09/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



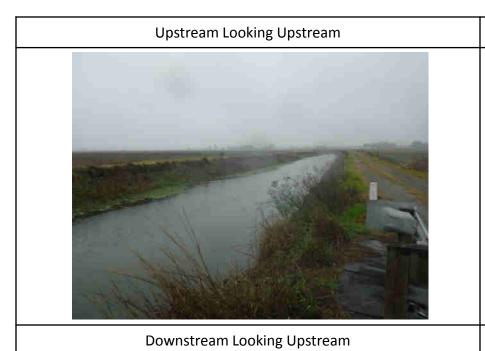
RECONNAISSANCE SURVEY INFORMATION				
County: BUT	Route: 99	PM: 8.21		
	Survey Information			
Date 2/9/2016 Time 9:07	Agency Performing Survey HDR			
Data Recorder BS (24 hr. clock)	Survey Team BS, JV			
	Site Information			
	GPS Data			
Longitude -121.68820679 Latitude	39.42256915			
GPS HDOP 2.15 Loc. of GPS	Point above outlet PM			
	Hydrologic Information			
Stream Name Hamilton Slough	Source: sign at site			
Basin East Side	Quad Name (7.5') BIGGS			
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin			
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin			
	Natural Stream Channel?			
Is there a definable channel upstream of culvert?	Yes			
Is the primary function for storm water runoff or road drainage	ge?: No			
Is the waterway a concrete-lined flood control channel?	No			
	Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 feet?	Yes			
Is the stream gradient < 20%?	Yes			
	Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhead)				
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead	Hataila Anadamana Basako			
	Historic Anadromous Reach?			
Has the stream reach upstream of the crossing supported a	an anadromous fish population? Unknown			
Source	Creecing Type			
Canading Time bridge u/o note still account	ints ID 12.0003			
Crossing Type bridge w/o potential passage constra General Description: concrete bridge without passage con				
General Description: concrete bridge without passage constraints Photos				
3.1 Upstream Looking Upstream - Photo I BUT	99_8.21_3.1_2-09-2016			
	99_8.21_3.1_2-09-2016			
	99_8.21_3.3_2-09-2016			
	99_8.21_3.4_2-09-2016			
	Detailed Survey Required?			
Detailed Survey Required?: No				

County: Butte Route: 99 Postmile: 8.21 Survey Date: 02/09/2016



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 9.21	
	Survey Information		
Date 2/8/2016 Time 16	Agency Performing Survey HDR		
Data Recorder JV (24 hr	clock) Survey Team JV, BS		
	Site Information		
	GPS Data		
Longitude -121.6881622 Latitu	de 39.43698821		
GPS HDOP 2.27 Loc. 0	of GPS Point above inlet PN	1	
	Hydrologic Information		
Stream Name Biggs Extention Canal	Source: sign at site		
Basin East Side	Quad Name (7.5') BIGGS		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
-	Natural Stream Channel?	<u> </u>	
Is there a definable channel upstream of culvert?	Yes		
·			
Is the primary function for storm water runoff or road			
Is the waterway a concrete-lined flood control chann			
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fee	et? Yes		
Is the stream gradient < 20%?	Yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supp	ported an anadromous fish population?		
Source Aerial imagery; irrigation canal with	no upstream connectivity to a natural stream		
Crossing Type			
Crossing Type Culvert	ID 120004		
General Description: concrete double bay box culve	ert with concrete bottom		
Photos			
3.1 Upstream Looking Upstream - Photo I	BUT_99_9.21_3.1_2-08-2016		
3.2 Upstream Looking Downstream - Photo I	BUT_99_9.21_3.2_2-08-2016		
3.3 Downstream Looking Upstream - Photo ID	BUT_99_9.21_3.3_2-08-2016		
3.4 Downstream Looking Downstream - Photo ID	BUT_99_9.21_3.4_2-08-2016		
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 9.21 Survey Date: 02/09/2016





Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION					
County: BUT Route: 99	PM: 9.55				
Survey Information					
Date 2/8/2016 Time 16:30 Agency Performing Survey HDR					
Data Recorder JV (24 hr. clock) Survey Team JV, BS					
Site Information					
GPS Data					
Longitude -121.68834351 Latitude 39.44225797					
GPS HDOP 2.55 Loc. of GPS Point above outlet PM					
Hydrologic Information					
Stream Name unknown Source:					
Basin East Side Quad Name (7.5') BIGGS					
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin					
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin					
Natural Stream Channel?					
Is there a definable channel upstream of culvert?					
Is the primary function for storm water runoff or road drainage?: No					
Is the waterway a concrete-lined flood control channel?					
Potential Fish Bearing Stream?					
Does the site contain an active channel width >2 feet? Yes Yes					
Is the stream gradient < 20%?					
Salmonid ESU/DPS					
ESU (Chinook and Coho Salmon) or DPS (Steelhead)					
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chinook					
Central Valley Steelhead Historic Anadromous Peach?					
Historic Anadromous Reach?					
Has the stream reach upstream of the crossing supported an anadromous fish population? No Source Aerial imagery; irrigation canal with no upstream connectivity to a natural stream					
Source Aerial imagery; irrigation canal with no upstream connectivity to a natural stream Crossing Type					
Crossing Type Culvert ID					
General Description: concrete double bay box culvert	1				
Photos					
3.1 Upstream Looking Upstream - Photo I BUT_99_9.55_3.1_2-08-2016	7				
3.2 Upstream Looking Downstream - Photo I BUT_99_9.55_3.2_2-08-2016	1				
3.3 Downstream Looking Upstream - Photo ID BUT_99_9.55_3.3_2-08-2016	i				
3.4 Downstream Looking Downstream - Photo ID BUT_99_9.55_3.4_2-08-2016	<u>-</u>				
Detailed Survey Required?	_				
Detailed Survey Required?: No					

County: Butte Route: 99 Postmile: 9.55 Survey Date: 02/08/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION					
County: BUT	Route: 99	PM: 9.62			
	Survey Information				
Date 2/8/2016 Time 15:45	Agency Performing Survey HDR				
Data Recorder JV (24 hr. clock	Survey Team JV, BS				
	Site Information				
	GPS Data				
Longitude -121.68835492 Latitude	39.44321504				
GPS HDOP 2.18 Loc. of GP					
	Hydrologic Information				
Stream Name unknown	Source:				
Basin East Side	Quad Name (7.5') BIGGS				
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin				
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin				
	Natural Stream Channel?				
Is there a definable channel upstream of culvert?	Yes				
Is the primary function for storm water runoff or road drain	nage?: No				
Is the waterway a concrete-lined flood control channel?					
,	Potential Fish Bearing Stream?				
December 25 and					
Does the site contain an active channel width >2 feet?	Yes				
Is the stream gradient < 20%?	Yes				
ESIL (Chinack and Caha Salman) as DDC (Charless II)	Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhead) Central Valley Spring-Run Chinook					
Central Valley Spring-Run Chinook Central Valley Fall_Late Fall-Run Chinook					
Central Valley Fall_Late Fall-Rull Chillook Central Valley Steelhead					
Central valley Steelifeau	Historic Anadromous Reach?				
Has the stream reach upstream of the crossing supported					
Source Aerial imagery; irrigation canal with no up	· · · · · · · · · · · · · · · · · · ·				
processing property and married up	Crossing Type				
Crossing Type Culvert	ID				
	rm; outlet unable to be located; irrigation canal that flows into a roadside of	ditch			
	Photos				
3.1 Upstream Looking Upstream - Photo I BU	T_99_9.62_3.1_2-08-2016				
3.2 Upstream Looking Downstream - Photo I N/A					
	T_99_9.62_3.3_2-08-2016				
	T_99_9.62_3.4_2-08-2016				
	Detailed Survey Required?				
Detailed Survey Required?: No					
× 6					

County: Butte Route: 99 Postmile: 9.62 Survey Date: 02/08/2016



RECONNAISSANCE SURVEY INFORMATION									
County: B	UT			ute: 99				PM:	10.65
			Sur	rvey Information	1				
Date 2/	8/2016	Time	15:25	Agency Perfor	ming Survey		HDR		
Data Recorder	JV		(24 hr. clock)	Survey Team	JV, BS				
			S	ite Information					
				GPS Data					
Longitude		-121.68854161	Latitude	39.457862	63				
GPS HDOP		1.63	Loc. of GPS Point	above outlet			PM		
			Нус	drologic Information	1				
Stream Name	unk	nown			Source:				
Basin		East Side		Quad Name (7.5')	BIGGS				
USGS Hydrologic	Unit	LOWER_BUTTE		CalWater Unit HA	Butte B	asin			
CalWater Unit HU	. [COLUSA BASIN		CalWater Unit HSA	Butte B	asin			
			Natu	ural Stream Channe	l?				
Is there a definable	le channe	l upstream of culve	ert?	Yes					
Is the primary fund	ction for s	torm water runoff o	r road drainage?:	No					
Is the waterway a	concrete	-lined flood control	channel?	No					
			Potenti	ial Fish Bearing Str	eam?				
Does the site con	tain an ac	ctive channel width	>2 feet?	Yes					
Is the stream grad	dient < 20	%?		Yes					
			S	Salmonid ESU/DPS					
		almon) or DPS (S	teelhead)						
Central Valley Spi	ring-Run	Chinook							
Central Valley Fal	II_Late Fa	II-Run Chinook							
Central Valley Ste	eelhead								
			Histori	c Anadromous Rea	ch?				
<u></u>			g supported an anad			No			
Source A	erial imag	ery; irrigation cana	I with no upstream co		al stream				
0 : =			1	Crossing Type					
Consol Description			te form: this culvert o	ID	the Thermalita	Afterbay lo	ree into a road	drainage/	etorm
General Description: concrete pipe in concrete form; this culvert passes seepage from the Thermalito Afterbay levee into a road drainage/storm water runoff ditch; the culvert is clogged									
				Photos					
3.1 Upstream Loc	oking Ups	stream - Photo I	BUT_99_10.	.65_3.1_2-08-2016					
3.2 Upstream Loc	oking Dov	vnstream - Photo I	BUT_99_10.	.65_3.2_2-08-2016					
3.3 Downstream	Looking L	Jpstream - Photo II		.65_3.3_2-08-2016					
3.4 Downstream	Looking [Downstream - Phot	o ID BUT_99_10.	.65_3.4_2-08-2016					
			Detaile	ed Survey Requi	ired?				
Detailed Survey F	Required?	. No							

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County: Butte Route: 99 Postmile: 10.65 Survey Date: 02/08/2016



RECONNAISSANCE SURVEY INFORMATION								
County:	BUT			ute: 99			PM:	10.93
			Sur	vey Information	1			
Date 2	2/8/2016	Time	15:15	Agency Perfori	ming Survey	HDR		
Data Recorder	JV		(24 hr. clock)	Survey Team	JV, BS			
			S	ite Information				
				GPS Data				
Longitude		-121.68834855	Latitude	39.4617230	08			
GPS HDOP	[1.77	Loc. of GPS Point	above inlet		PM		
			Нус	Irologic Information	1			
Stream Name	unk	known			Source:			
Basin		East Side		Quad Name (7.5')	BIGGS			
USGS Hydrolog	gic Unit	LOWER_BUTTE		CalWater Unit HA	Butte Basi	n		
CalWater Unit H	HU	COLUSA BASIN		CalWater Unit HSA	Butte Basi	n		
			Natu	ıral Stream Channe	I?			
Is there a defina	able channe	el upstream of culve	ert?	Yes				
Is the primary fu	unction for s	storm water runoff o	or road drainage?:	No				
Is the waterway	a concrete	e-lined flood control	channel?	No				
			Potenti	al Fish Bearing Stre	eam?			
Does the site co	ontain an a	ctive channel width	>2 feet?	No				
Is the stream gr	radient < 20	0%?		Yes				
			S	almonid ESU/DPS				
		Salmon) or DPS (S	teelhead)					
Central Valley S	Spring-Run	Chinook						
Central Valley F	Fall_Late Fa	all-Run Chinook						
Central Valley S	Steelhead							
			Histori	c Anadromous Rea	ch?			
			g supported an anad		-	No		
Source	Aerial imag	gery; irrigation cana	l with no upstream co		al stream			
0	Tumo Cont	ort		Crossing Type				
General Descrip	Type Culv		ulvert in concrete form	ID n: this culvert passes	seepage from the	Thermalito Afterbay le	vee into ar	n irrigation
Conordi Dosoni	cana					The state of the s	. 30	9
				Photos			-1	
3.1 Upstream L	• .		-	93_3.1_2-08-2016]	
	_	wnstream - Photo I		93_3.2_2-08-2016]	
	_	Upstream - Photo II		93_3.3_2-08-2016]	
3.4 Downstream	m Looking	Downstream - Phot	o ID BUT_99_10	93_3.4_2-08-2016			<u> </u>	
			Detaile	d Survey Requi	ired?			
Detailed Survey	v Required	2.						

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County: Butte Route: 99 Postmile: 10.93 Survey Date: 02/08/2016



RECONNAISSANCE SURVEY INFORMATION								
County: BUT		Ro	ute: 99				PM:	11.22
		Sur	vey Information					
Date 2/8/2016	Time	15:00	Agency Perforn			HDR		
Data Recorder JV	(24 hr. clock)	Survey Team	JV, BS				
		Si	te Information					
			GPS Data					
Longitude	-121.6886259 լ	_atitude	39.4660710)1				
GPS HDOP	2.43	oc. of GPS Point	above outlet			PM		
		Hyd	rologic Information					
Stream Name unk	known			Source:				
Basin	East Side		Quad Name (7.5')	BIGGS				
USGS Hydrologic Unit	LOWER_BUTTE		CalWater Unit HA	Butte Bas	sin			
CalWater Unit HU	COLUSA BASIN		CalWater Unit HSA	Butte Bas	sin			
		Natu	ıral Stream Channel	l?				
Is there a definable channe	el upstream of culver	t?	Yes					
Is the primary function for s	storm water runoff or	road drainage?:	No					
Is the waterway a concrete	e-lined flood control c	hannel?	No					
		Potenti	al Fish Bearing Stre	eam?				
Does the site contain an a	ctive channel width >	2 feet?	Yes					
Is the stream gradient < 20	0%?		Yes					
			almonid ESU/DPS					
ESU (Chinook and Coho S	<u> </u>	eelhead)						
Central Valley Spring-Run								
Central Valley Fall_Late Fall_Late Fall_Late	all-Run Chinook							
Central Valley Steelhead								
			c Anadromous Read		1			
Has the stream reach upst				-	No			
Source Aerial imag	gery; irrigation canal	with no upstream co		al stream				
			Crossing Type					
Crossing Type Culv		outvort peaces with	ID	from the Theres	olita Aftarbas	lovoo into a :	rood	1
General Description: concrete box culvert; this culvert passes water that seeps directly from the Thermalito Afterbay levee into a road drainage/storm water runoff ditch								
			Photos					
3.1 Upstream Looking Ups	stream - Photo I	BUT_99_11.	22_3.1_2-08-2016					
3.2 Upstream Looking Do	wnstream - Photo I	BUT_99_11.	22_3.2_2-08-2016					
3.3 Downstream Looking	Upstream - Photo ID	BUT_99_11.	22_3.3_2-08-2016					
3.4 Downstream Looking	Downstream - Photo	ID BUT_99_11.	22_32-08-2016					
		Detaile	d Survey Requi	red?				
Datailed Survey Required	2.							

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County: Butte Route: 99 Postmile: 11.22 Survey Date: 02/08/2016



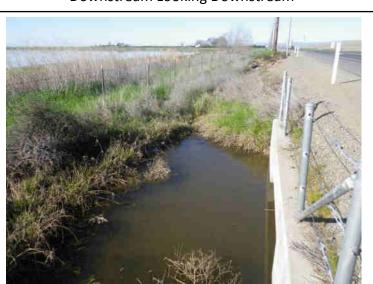
Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream

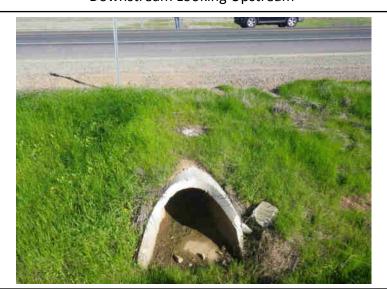


RECO	ONNAISSANCE SURVEY INFORMATION	
County: BUT	Route: 99	PM: 11.69
	Survey Information	
Date 2/8/2016 Time	14:55 Agency Performing Survey HDR	
Data Recorder JV	(24 hr. clock) Survey Team JV, BS	
	Site Information	
	GPS Data	
Longitude -121.68844935	Latitude 39.47265668	
GPS HDOP 1.69	Loc. of GPS Point above inlet PM	
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Side	Quad Name (7.5') BIGGS	
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	
	Natural Stream Channel?	_
Is there a definable channel upstream of culv		
Is the primary function for storm water runoff		
Is the waterway a concrete-lined flood control		
	Potential Fish Bearing Stream?	
Does the site contain an active channel width	n >2 feet? Yes	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (S	Steelhead)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing	ng supported an anadromous fish population?	
Source Aerial imagery; irrigation cana	al with no upstream connectivity to a natural stream	
	Crossing Type	
Crossing Type Culvert	ID	
General Description: concrete pipe culvert; t	his road drainage/storm water runoff ditch collects seepage from the Thermalito Aft	erbay levee
	Photos	
3.1 Upstream Looking Upstream - Photo I	BUT_99_11.69_3.1_2-08-2016]
3.2 Upstream Looking Downstream - Photo I	BUT_99_11.69_3.2_2-08-2016]
3.3 Downstream Looking Upstream - Photo I	D BUT_99_11.69_3.3_2-08-2016]
3.4 Downstream Looking Downstream - Pho	to ID BUT_99_11.69_3.4_2-08-2016]
	Detailed Survey Required?	
Detailed Survey Required?: No		

County: Butte Route: 99 Postmile: 11.69 Survey Date: 02/08/2016

Upstream Looking Upstream

Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONN	AISSANCE SURVEY INFORMATION	
County: BUT	Route: 99	PM: 12.25
	Survey Information	
Date 2/8/2016 Time 14	23 Agency Performing Survey HDR	
Data Recorder BS (24 hr.	clock) Survey Team BS, JV	
	Site Information	
	GPS Data	
Longitude -121.68869327 Latitu	de 39.4811014	
GPS HDOP 3.25 Loc. o	of GPS Point above outlet PM	
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Side	Quad Name (7.5') BIGGS	
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	Yes	
Is the primary function for storm water runoff or road	drainage?: No	
Is the waterway a concrete-lined flood control chann		
is the waterway a consiste linear need control chain	Potential Fish Bearing Stream?	
	Potential FISH Bearing Stream?	
Does the site contain an active channel width >2 fee		
Is the stream gradient < 20%?	Yes	
FOUNDAMENTAL CONTRACTOR OF THE	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)	
Central Valley String Bun Chinaek		
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook	Historic Anadromous Reach?	
Has the stream reach unstream of the areasing supplied		
Has the stream reach upstream of the crossing supp Source Aerial imagery; irrigation canal with r	no upstream connectivity to a natural stream	
rional imagory, imgalion candi with	Crossing Type	
Crossing Type Culvert	ID	
<u> </u>	n irrigation canal seeping from the base of the Thermalito Afterbay levee	
	Photos	
3.1 Upstream Looking Upstream - Photo I	BUT_99_12.25_3.1_2-08-2016	
3.2 Upstream Looking Downstream - Photo I	BUT_99_12.25_3.2_2-08-2016	
3.3 Downstream Looking Upstream - Photo ID	BUT_99_12.25_3.3_2-08-2016	
3.4 Downstream Looking Downstream - Photo ID	BUT_99_12.25_3.4_2-08-2016	
	Detailed Survey Required?	
Detailed Survey Required?: No		

County: Butte Route: 99 Postmile: 12.25 Survey Date: 02/08/2016

Upstream Looking Upstream

Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONI	NAISSANCE SURVEY INFORMATION	
County: BUT	Route: 99	PM: 12.83
	Survey Information	
Date 2/8/2016 Time 1	3:50 Agency Performing Survey HDR	
Data Recorder JV (24 I	hr. clock) Survey Team JV, BS	
	Site Information	
	GPS Data	
Longitude -121.68876077 Lati	tude 39.48933566	
GPS HDOP 1.88 Loc	of GPS Point above outlet PM	
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Side	Quad Name (7.5') BIGGS	
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	<u></u>
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	<u></u>
·	Natural Stream Channel?	
le there e definable channel unatroom of autwort?	Yes	
Is there a definable channel upstream of culvert?		
Is the primary function for storm water runoff or roa	 	
Is the waterway a concrete-lined flood control char	nnel? No	
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fe	eet? Yes	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelf	nead)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing support	pported an anadromous fish population?	
Source Aerial imagery; irrigation canal with	n no upstream connectivity to a natural stream	
	Crossing Type	
Crossing Type Culvert	ID	
General Description: double bay concrete box cul	vert; this is a irrigation canal coming from the base of the Thermalito Afterbay	
	Photos	
3.1 Upstream Looking Upstream - Photo I	BUT_99_12.83_3.1_2-08-2016]
3.2 Upstream Looking Downstream - Photo I	BUT_99_12.83_3.2_2-08-2016]
3.3 Downstream Looking Upstream - Photo ID	BUT_99_12.83_3.3_2-08-2016	
3.4 Downstream Looking Downstream - Photo ID	BUT_99_12.83_3.4_2-08-2016	
	Detailed Survey Required?	
Detailed Survey Required?: No		

County: Butte Route: 99 Postmile: 12.83 Survey Date: 02/08/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION					
County: BUT	Route: 99	PM: 13.25			
	Survey Information				
Date 2/8/2016 Time 1	2:30 Agency Performing Survey	HDR			
Data Recorder JV (24	hr. clock) Survey Team JV, BS				
	Site Information				
	GPS Data				
Longitude -121.68878359 Lat	itude 39.49562074				
GPS HDOP 2.05 Loc	c. of GPS Point above outlet	PM			
	Hydrologic Information				
Stream Name Junction Draw	Source:	sign at site			
Basin East Side	Quad Name (7.5') BIGGS				
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	n			
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	n			
	Natural Stream Channel?				
Is there a definable channel upstream of culvert?	Yes				
Is the primary function for storm water runoff or roa	ad drainage?:				
Is the waterway a concrete-lined flood control char					
is the waterway a consiste linea need control on a	Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 f					
Is the stream gradient < 20%?	Yes				
	Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steel	head)				
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chinook					
Central Valley Steelhead					
	Historic Anadromous Reach?				
Has the stream reach upstream of the crossing su	· · · · · · · · · · · · · · · · · · ·	No			
Source Aerial imagery; irrigation canal wit	h no upstream connectivity to a natural stream				
	Crossing Type				
Crossing Type bridge w/o potential passag	<u> </u>				
General Description: Ino postmile marker at site s Thermalito Afterbay levee	o PM is estimated; this is an irrigation canal created fror	n a pumping station at the base of the			
	Photos				
3.1 Upstream Looking Upstream - Photo I	BUT_99_13.25_3.1_2-08-2016				
3.2 Upstream Looking Downstream - Photo I	BUT_99_13.25_3.2_2-08-2016				
3.3 Downstream Looking Upstream - Photo ID	BUT_99_13.25_3.3_2-08-2016				
3.4 Downstream Looking Downstream - Photo ID	BUT_99_13.25_3.4_2-08-2016				
	Detailed Survey Required?				
Detailed Survey Required?:					

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County: Butte Route: 99 Postmile: 13.25 Survey Date: 02/08/2016

Upstream Looking Upstream

Downstream Looking Upstream



Upstream Looking Downstream



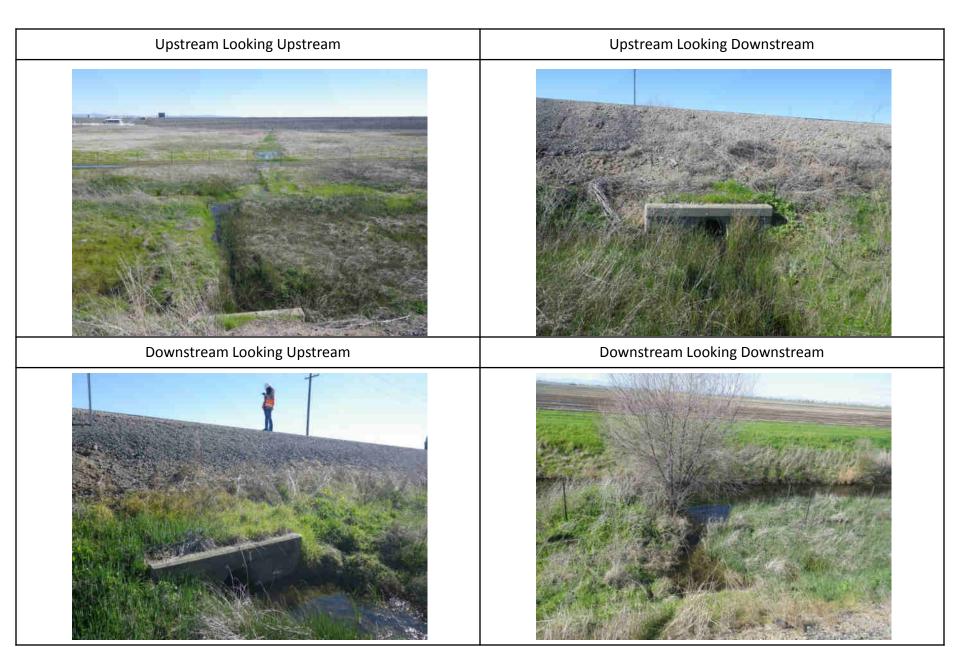
Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION					
County: BUT	Route: 99		PM: 13.89		
	Survey Information				
Date 2/8/2016 Time 12	2:01 Agency Performing	Survey HDR			
Data Recorder BS (24 h	r. clock) Survey Team BS	S, JV			
	Site Information				
	GPS Data				
Longitude -121.6888446 Latit	ude 39.50457978				
GPS HDOP 4.38 Loc.	of GPS Point above outlet	PM			
	Hydrologic Information				
Stream Name unknown	So	ource:			
Basin East Side	Quad Name (7.5')	SHIPPEE			
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA	Butte Basin			
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA	Butte Basin			
	Natural Stream Channel?				
Is there a definable channel upstream of culvert?	Yes				
Is the primary function for storm water runoff or road	d drainage?:				
Is the waterway a concrete-lined flood control chann		_			
·	Potential Fish Bearing Stream?				
Page the effect of the section of th					
Does the site contain an active channel width >2 fe					
Is the stream gradient < 20%?	Yes				
ESU (Chinook and Coho Salmon) or DPS (Steelh	Salmonid ESU/DPS				
Central Valley Spring-Run Chinook	eau)				
Central Valley Fall_Late Fall-Run Chinook	=				
Central Valley Steelhead	=				
Central valley Steelineau	Historic Anadromous Reach?				
Has the stream reach upstream of the crossing sup		No			
	no upstream connectivity to a natural stre		1		
, <u> </u>	Crossing Type				
Crossing Type Culvert	ID				
	rete form; likely primarily for road drainage	e, but also collects water seeping from	n the bottom of the		
	Photos				
3.1 Upstream Looking Upstream - Photo I	BUT_99_13.89_3.1_2-08-2016				
3.2 Upstream Looking Downstream - Photo I	BUT_99_13.89_3.2_2-08-2016				
3.3 Downstream Looking Upstream - Photo ID	BUT_99_13.89_3.3_2-08-2016				
3.4 Downstream Looking Downstream - Photo ID	BUT_99_13.89_3.4_2-08-2016				
	Detailed Survey Required	?			
Detailed Survey Required?	7				

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County: Butte Route: 99 Postmile: 13.89 Survey Date: 02/08/2016



RECONNAISSANCE SURVEY INFORMATION						
County: BUT	Route: 99		PM: 13.95			
	Survey Information					
Date 2/8/2016 Time 11:45	Agency Performing	Survey HDR				
Data Recorder JV (24 hr. cld	Survey Team JV,	MA				
	Site Information					
	GPS Data					
Longitude -121.6888658 Latitude	39.50564944					
GPS HDOP 2.02 Loc. of 0	GPS Point above outlet	PM				
	Hydrologic Information					
Stream Name unknown, but likely part of Wes	tern Canal Sou	urce:				
Basin East Side	Quad Name (7.5')	SHIPPEE				
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA	Butte Basin				
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA	Butte Basin				
	Natural Stream Channel?					
Is there a definable channel upstream of culvert?	Yes					
Is the primary function for storm water runoff or road dr	ainage?: No					
Is the waterway a concrete-lined flood control channel?		- 1				
, , , , , , , , , , , , , , , , , , , ,	Potential Fish Bearing Stream?	_				
Describe of a control of a control of the Office						
Does the site contain an active channel width >2 feet?	Yes					
Is the stream gradient < 20%?	Yes					
ESU (Chinook and Coho Salmon) or DPS (Steelhead	Salmonid ESU/DPS					
Central Valley Spring-Run Chinook) ¬					
Central Valley Fall_Late Fall-Run Chinook	<u></u>					
	」 ¬					
Central Valley Steelhead	Historic Anadromous Reach?					
Has the stream reach unstream of the assessing surroun		No				
Has the stream reach upstream of the crossing suppor Source Aerial imagery; irrigation canal with no		No No				
proma magory, migation outful with no	Crossing Type					
Crossing Type Culvert	ID					
General Description: double concrete pipe culvert in c	oncrete form; this is an irrigation canal	coming out of Thermalito Afterbay d	irectly south of			
Western Canal						
3.1 Upstream Looking Upstream - Photo I	Photos BUT_99_13.95_3.1_2-08-2016	1				
	BUT_99_13.95_3.2_2-08-2016					
	BUT_99_13.95_3.3_2-08-2016					
	BUT_99_13.95_3.4_2-08-2016					
5. Dominican Looking Dominican Thold ID						
Detailed Survey Required?						

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County: Butte Route: 99 Postmile: 13.95 Survey Date: 02/08/2016

Upstream Looking Upstream

Downstream Looking Upstream



Upstream Looking Downstream

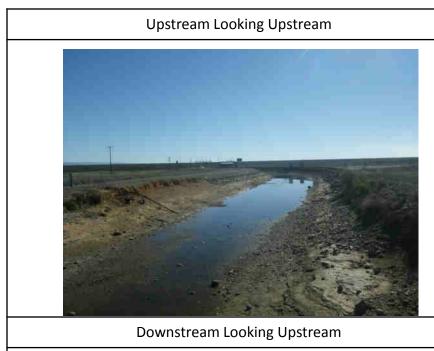


Downstream Looking Downstream



RECONN	AISSANCE SURVEY INFORMATION	
County: BUT	Route: 99	PM: 14.03
	Survey Information	
Date 2/8/2016 Time 11:	20 Agency Performing Survey HDR	
Data Recorder JV (24 hr.	clock) Survey Team JV, BS	
	Site Information	
	GPS Data	
Longitude -121.68886385 Latitud	de 39.50683506	
GPS HDOP 1.53 Loc. of	f GPS Point above outlet PM	
	Hydrologic Information	
Stream Name Western Canal	Source: CT Bridge log	
Basin East Side	Quad Name (7.5') SHIPPEE	
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	Yes	
Is the primary function for storm water runoff or road		
Is the waterway a concrete-lined flood control channe	el? No	
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fee	Yes Yes	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhed	ad)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing supp	orted an anadromous fish population?	
Source Aerial imagery; irrigation canal with r	o upstream connectivity to a natural stream	
	Crossing Type	
Crossing Type bridge w/o potential passage of		
General Description: this is an irrigation canal origin	ating from Thermalito Afterbay	
	Photos	
3.1 Upstream Looking Upstream - Photo I	BUT_99_14.30_3.1_2-08-2016	
3.2 Upstream Looking Downstream - Photo I	BUT_99_14.30_3.2_2-08-2016	
3.3 Downstream Looking Upstream - Photo ID	BUT_99_14.30_3.3_2-08-2016	
3.4 Downstream Looking Downstream - Photo ID	BUT_99_14.30_3.4_2-08-2016	
	Detailed Survey Required?	
Detailed Survey Required?: No		
Report Date 03-15-2016		

County: Butte Route: 99 Postmile: 14.03 Survey Date: 02/08/2016





Upstream Looking Downstream

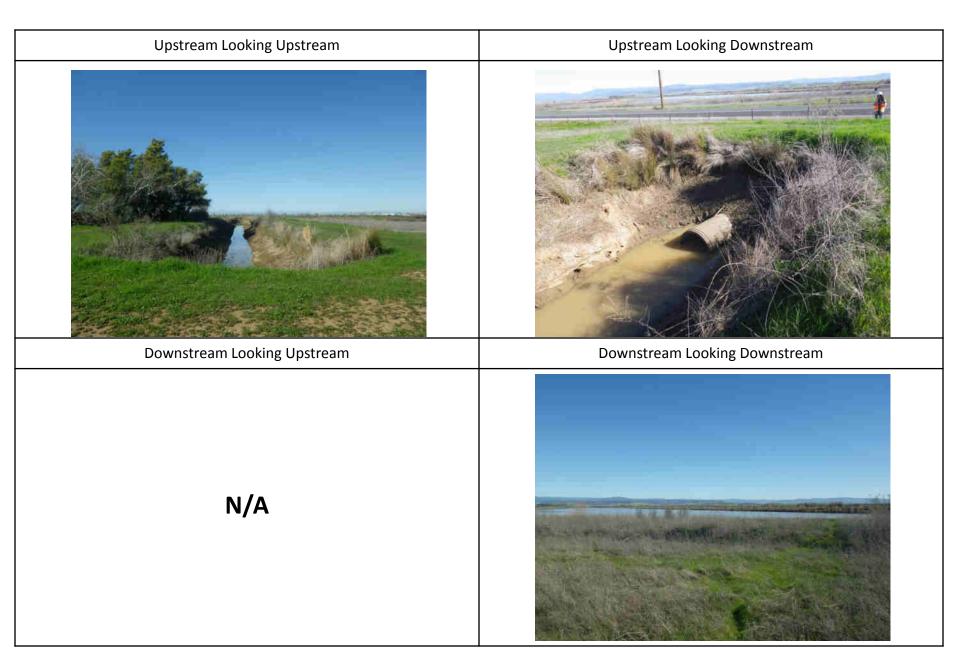


Downstream Looking Downstream



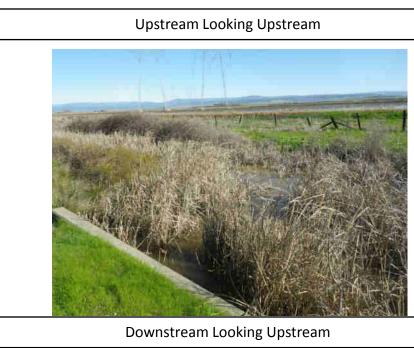
RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 14.30	
	Survey Information		
Date 2/8/2016 Time 11	1:10 Agency Performing Survey HDR		
Data Recorder JV (24 hr	r. clock) Survey Team JV, BS		
	Site Information		
	GPS Data		
Longitude -121.68893542 Latitu	ude 39.5102147		
GPS HDOP 2.1 Loc.	of GPS Point above inlet PM		
	Hydrologic Information		
Stream Name unknown	Source: CT Bridge log		
Basin East Side	Quad Name (7.5') SHIPPEE		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
-	Natural Stream Channel?		
Is there a definable channel upstream of culvert?	Yes		
·			
Is the primary function for storm water runoff or road	 		
Is the waterway a concrete-lined flood control chann			
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fe	et? Yes		
Is the stream gradient < 20%?	Yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelho	ead)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing sup	ported an anadromous fish population?		
Source Aerial imagery; irrigation canal with	no upstream connectivity to a natural stream		
	Crossing Type		
Crossing Type Culvert	ID 120119		
General Description: concrete pipe culvert; this see	ems to be an irrigation canal connected to Western Canal		
	Photos		
3.1 Upstream Looking Upstream - Photo I	BUT_99_14.30_3.1_2-08-2016		
3.2 Upstream Looking Downstream - Photo I	BUT_99_14.30_3.2_2-08-2016		
3.3 Downstream Looking Upstream - Photo ID	N/A		
3.4 Downstream Looking Downstream - Photo ID	BUT_99_14.30_3.4_2-08-2016]	
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 14.30 Survey Date: 02/08/2016



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 14.48	
	Survey Information		
Date 2/8/2016	Time 10:48 Agency Performing Survey HDR		
Data Recorder JV	(24 hr. clock) Survey Team JV, BS		
	Site Information		
	GPS Data		
Longitude -12	21.688890026 Latitude 39.51295829		
GPS HDOP	1.64 Loc. of GPS Point above outlet PM		
	Hydrologic Information		
Stream Name unknow	wn Source:		
Basin Ea	ast Side Quad Name (7.5') SHIPPEE		
	DWER_BUTTE CalWater Unit HA Butte Basin		
, ,	DLUSA BASIN CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel up			
	rm water runoff or road drainage?: No		
	1		
Is the waterway a concrete-line			
	Potential Fish Bearing Stream?		
Does the site contain an active	re channel width >2 feet? Yes		
Is the stream gradient < 20%?	? Yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Saln	<u> </u>		
Central Valley Spring-Run Chi			
Central Valley Fall_Late Fall-F	Run Chinook		
Central Valley Steelhead			
	Historic Anadromous Reach?		
	m of the crossing supported an anadromous fish population?		
Source Aerial imagery	y; irrigation canal with no upstream connectivity to a natural stream		
	Crossing Type		
Crossing Type Culvert			
General Description: double concrete pipe culvert in concrete form; this seems to be an irrigation canal			
	Photos	_	
3.1 Upstream Looking Upstre		╣	
3.2 Upstream Looking Downs		=	
3.3 Downstream Looking Ups		<u> </u>	
3.4 Downstream Looking Dov			
Detailed Survey Required?			
Detailed Survey Required?:	No		

County: Butte Route: 99 Postmile: 14.48 Survey Date: 02/08/2016





Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 14.74	
	Survey Information		
Date 2/8/2016 Time 10	25 Agency Performing Survey HDR		
Data Recorder JV (24 hr	. clock) Survey Team JV, BS		
	Site Information		
	GPS Data		
Longitude -121.68872017 Latitu	de 39.5167075		
GPS HDOP 0.49 Loc.	of GPS Point above outlet PN	1	
	Hydrologic Information		
Stream Name unkown	Source:		
Basin East Side	Quad Name (7.5') SHIPPEE		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel upstream of culvert?	Yes		
Is the primary function for storm water runoff or road			
			
Is the waterway a concrete-lined flood control chann			
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fee	et? Yes		
Is the stream gradient < 20%?	Yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead	<u> </u>		
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supp	· · · · · · · · · · · · · · · · · · ·		
Source Aerial imagery; irrigation canal with	no upstream connectivity to a natural stream		
	Crossing Type		
Crossing Type Culvert	ID		
General Description: concrete box culvert built in 1			
	Photos		
3.1 Upstream Looking Upstream - Photo I	BUT_99_14.74_3.1_2-08-2016	<u>_</u>	
3.2 Upstream Looking Downstream - Photo I	BUT_99_14.74_3.2_2-08-2016	<u> </u>	
3.3 Downstream Looking Upstream - Photo ID	BUT_99_14.74_3.3_2-08-2016	<u> </u>	
3.4 Downstream Looking Downstream - Photo ID	BUT_99_14.74_3.4_2-08-2016		
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 14.74 Survey Date: 02/08/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 14.98	
	Survey Information		
Date 2/5/2016 Time 13	.57 Agency Performing Survey HDR		
Data Recorder ST, NO (24 hr	clock) Survey Team ST, NO		
	Site Information		
	GPS Data		
Longitude -121.688908 Latitu	de 39.519915		
GPS HDOP 2 Loc. 0	of GPS Point above outlet PM		
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5') SHIPPEE		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
_	Natural Stream Channel?	_	
le there e defineble channel unetreem of outvert?	No No		
Is there a definable channel upstream of culvert?			
Is the primary function for storm water runoff or road			
Is the waterway a concrete-lined flood control chann	el? Yes		
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fee	t? No		
Is the stream gradient < 20%?	yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supp	oorted an anadromous fish population?		
Source Aerial imagery; irrigation canal with	no upstream connectivity to a natural stream		
	Crossing Type		
Crossing Type Culvert	ID		
General Description: Concrete pipe culvert with a c	oncrete headwall.		
	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_14.98_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_14.98_UD		
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_14.98_DU		
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_14.98_DD		
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 14.98 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 15.27	
	Survey Information		
Date 2/5/2016 Time 13	3:43 Agency Performing Survey HDR]	
Data Recorder ST, NO (24 hr	r. clock) Survey Team ST, NO		
	Site Information		
	GPS Data		
Longitude -121.688656 Latit	ude 39.524764		
GPS HDOP 3 Loc.	of GPS Point above outlet PM		
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5') SHIPPEE		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel upstream of culvert?	No		
Is the primary function for storm water runoff or road	d drainage?:		
Is the waterway a concrete-lined flood control chann	· · · · · · · · · · · · · · · · · · ·		
is the waterway a concrete-lined flood control charm			
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fee	et? No		
Is the stream gradient < 20%?	yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelho	ead)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing sup			
Source Aerial imagery; irrigation canal with	no upstream connectivity to a natural stream		
	Crossing Type		
Crossing Type Culvert General Description: Concrete pipe culvert with co	ID		
General Description.			
2.1 Unstroom Looking Unstroom Photo	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_15.27_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_15.27_UD		
3.3 Downstream Looking Upstream - Photo ID3.4 Downstream Looking Downstream - Photo ID	3.3_BUT_99_15.27_DU 3.4_BUT_99_15.27_DD		
5.4 Downstream Looking Downstream - Photo ID			
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 15.27 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 15.41	
	Survey Information		
Date 2/5/2016 Time 12	:10 Agency Performing Survey HDR		
Data Recorder ST, NO (24 hr	clock) Survey Team ST, NO		
	Site Information		
	GPS Data		
Longitude -121.688713 Latitu	de 39.527073		
GPS HDOP 0.1 Loc.	of GPS Point above inlet PM		
	Hydrologic Information		
Stream Name COTTONWOOD CR	Source: sign at site		
Basin East Side	Quad Name (7.5') SHIPPEE	\neg	
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	一	
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	一	
	Natural Stream Channel?		
Is there a definable channel upstream of culvert?	Yes		
Is the primary function for storm water runoff or road	drainage?: No No		
Is the waterway a concrete-lined flood control chann	el? No		
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fee	t? Yes		
Is the stream gradient < 20%?	Yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supp	orted an anadromous fish population?		
Source Tributary to Butte Creek, CV Spring-	run 5-Year Status Review (NMFS 2005)		
	Crossing Type		
Crossing Type bridge w/o potential passage	constraints ID 12-0120		
General Description: Concrete pillar bridge.			
	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_15.41_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_15.41_UD		
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_15.41_DU		
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_15.41_DD		
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 15.41 Survey Date: 02/05/2016

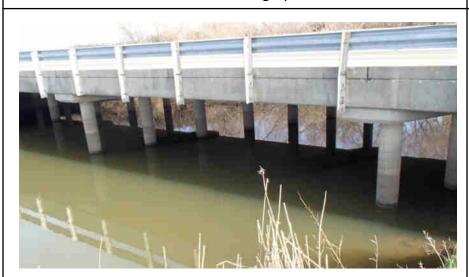
Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 15.47	
	Survey Information		
Date 2/5/2016 Time 12:	08 Agency Performing Survey HDR		
Data Recorder ST (24 hr.	clock) Survey Team ST, NO		
	Site Information		
	GPS Data		
Longitude -121.68888 Latitud	de 39.52754		
GPS HDOP 0.1 Loc. o	of GPS Point above outlet P	M	
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5') SHIPPEE		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel upstream of culvert?	No		
Is the primary function for storm water runoff or road	drainage?: Yes		
Is the waterway a concrete-lined flood control channel			
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fee			
Is the stream gradient < 20%?	Yes		
FOLL (Ching of and Caba Calman) as DDC (Chadha	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelher Central Valley Spring-Run Chinook	ad)		
Central Valley Fall_Late Fall-Run Chinook	=		
	-		
Central Valley Steelhead	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supp			
	no upstream connectivity to a natural stream	1	
13.77	Crossing Type		
Crossing Type	ID		
General Description:			
	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_15.47_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_15.47_UD		
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_15.47_DU		
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_15.47_DD		
Detailed Survey Required?			
Detailed Survey Required?: No]		

County: Butte Route: 99 Postmile: 15.47 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION				
County: BUT Route: 99	PM: 15.49			
Survey Information				
Date 2/5/2016 Time 12:05 Agency Performing Survey HDR				
Data Recorder ST (24 hr. clock) Survey Team ST, NO				
Site Information				
GPS Data				
Longitude -121.688877 Latitude 39.527811				
	М			
Hydrologic Information				
Stream Name unknown Source:				
Basin East Side Quad Name (7.5') SHIPPEE				
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin				
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin				
Natural Stream Channel?				
Is there a definable channel upstream of culvert?				
Is the primary function for storm water runoff or road drainage?: Yes				
Is the waterway a concrete-lined flood control channel?				
Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 feet?				
Is the stream gradient < 20%?				
Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhead)				
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead				
Historic Anadromous Reach?				
Has the stream reach upstream of the crossing supported an anadromous fish population?				
Source Aerial imagery; irrigation canal with no upstream connectivity to a natural stream				
Crossing Type				
Crossing Type Culvert ID				
General Description: Concrete pipe culvert with concrete headwall				
Photos				
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_15.49_UU	<u></u>			
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_15.49_UD	<u></u>			
3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_15.49_DU	<u></u>			
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_15.49_DD				
Detailed Survey Required?				
Detailed Survey Required?: No				
D 10 10 10 10 10 10 10 10 10 10 10 10 10				

County: Butte Route: 99 Postmile: 15.49 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 15.51	
	Survey Information		
Date 2/5/2016 Time 12	2:03 Agency Performing Survey HDR]	
Data Recorder ST (24 hr	r. clock) Survey Team ST, NO		
	Site Information		
	GPS Data		
Longitude -121.688871 Latitu	ude 39.528085		
GPS HDOP 0.1 Loc.	of GPS Point above outlet PM		
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5') SHIPPEE		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel upstream of culvert?	No No		
Is the primary function for storm water runoff or road			
Is the waterway a concrete-lined flood control chann	<u> </u>		
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fee	et? No		
Is the stream gradient < 20%?	Yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelho	ead)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing sup	ported an anadromous fish population?		
Source Aerial imagery; irrigation canal with	no upstream connectivity to a natural stream		
	Crossing Type		
Crossing Type Culvert	ID		
General Description: concrete pipe culvert with con			
	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_15.51_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_15.51_UD		
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_15.51_DU		
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_15.51_DD		
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 15.51 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream





Downstream Looking Upstream

Downstream Looking Downstream





RECONNAISSANCE SURVEY INFORMATION				
County: BUT Route: 99	PM: 15.57			
Survey Information				
Date 2/5/2016 Time 12:00 Agency Performing Survey	HDR			
Data Recorder ST (24 hr. clock) Survey Team ST, NO				
Site Information				
GPS Data				
Longitude -121.688874 Latitude 39.528904				
GPS HDOP 0.1 Loc. of GPS Point above outlet	PM			
Hydrologic Information				
Stream Name unknown Source:				
Basin East Side Quad Name (7.5') SHIPPEE				
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Bas	sin			
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Bas	sin			
Natural Stream Channel?				
Is there a definable channel upstream of culvert?				
Is the primary function for storm water runoff or road drainage?: Yes				
Is the waterway a concrete-lined flood control channel?				
Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 feet?				
Is the stream gradient < 20%?				
Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhead)				
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead				
Historic Anadromous Reach?				
Has the stream reach upstream of the crossing supported an anadromous fish population?	No			
Source Crossing Type				
Crossing Type Culvert ID				
General Description: Concrete pipe culvert with concrete headwall				
Photos				
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_15.57_UU				
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_15.57_UD				
3.3 Downstream Looking Upstream - Photo ID 3.3 BUT_99_15.57_DU				
3.4 Downstream Looking Downstream - Photo ID 3.4 BUT_99_15.57_DD				
Detailed Survey Required?				
Detailed Survey Required?: No				

County: Butte Route: 99 Postmile: 15.57 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT Route: 99 PM:	15.61		
Survey Information			
Date 2/5/2016 Time 11:56 Agency Performing Survey HDR			
Data Recorder ST, NO (24 hr. clock) Survey Team ST, NO			
Site Information			
GPS Data			
Longitude -121.688867 Latitude 39.52946			
GPS HDOP 0.1 Loc. of GPS Point above outlet PM			
Hydrologic Information			
Stream Name unknown Source:			
Basin East Side Quad Name (7.5') SHIPPEE			
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin			
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin			
Natural Stream Channel?			
Is there a definable channel upstream of culvert?			
Is the primary function for storm water runoff or road drainage?: Yes			
Is the waterway a concrete-lined flood control channel?			
Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 feet?			
Is the stream gradient < 20%?			
Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhead)			
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
Historic Anadromous Reach?			
Has the stream reach upstream of the crossing supported an anadromous fish population? No			
Source Crossing Type			
Crossing Type			
Crossing Type Culvert ID General Description: concrete pipe culvert with concrete headwall	1		
Photos			
3.2 Upstream Looking Downstream - Photo I 3.2 BUT_99_15.61_UD 3.3 Downstream Cooking Upstream Photo ID 3.4 BUT_99_15.61_UD			
3.3 Downstream Looking Upstream - Photo ID 3.3 BUT_99_15.61_DU 3.4 Downstream Looking Downstream Photo ID 3.4 Downstream Looking Downstream Photo ID			
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_15.61_DD			
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 15.61 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 15.67	
	Survey Information		
Date 2/5/2016 Time 12	Agency Performing Survey	HDR	
Data Recorder NO (24 hr	. clock) Survey Team NO, ST		
	Site Information		
	GPS Data		
Longitude -121.688869 Latitu	ude 39.530282		
GPS HDOP 1 Loc.	of GPS Point above outlet	PM	
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5') SHIPPEE		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel upstream of culvert?	No		
Is the primary function for storm water runoff or road	drainage? Yes		
	- and mage :		
Is the waterway a concrete-lined flood control chann			
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 feels the stream gradient < 20%?	et? No Yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing sup	ported an anadromous fish population?		
Source			
	Crossing Type		
Crossing Type Culvert	ID		
General Description: Concrete pipe culvert with a concrete pipe culver	concrete headwall.		
	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_15.67_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_15.67_UD		
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_15.67_DU		
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_15.67_DD		
	Detailed Survey Required?		
Detailed Survey Required?: No			
Report Date 03-15-2016	_		

County: Butte Route: 99 Postmile: 15.67 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION				
	15.69			
Survey Information				
Date 2/5/2016 Time 12:45 Agency Performing Survey HDR				
Data Recorder NO (24 hr. clock) Survey Team NO, ST				
Site Information				
GPS Data				
Longitude -121.688866 Latitude 39.53056				
GPS HDOP 1 Loc. of GPS Point above outlet PM				
Hydrologic Information				
Stream Name unknown Source:				
Basin East Side Quad Name (7.5') SHIPPEE				
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin				
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin				
Natural Stream Channel?				
Is there a definable channel upstream of culvert?				
Is the primary function for storm water runoff or road drainage?: Yes				
Is the waterway a concrete-lined flood control channel?				
Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 feet?				
Is the stream gradient < 20%?				
Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhead)				
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead				
Historic Anadromous Reach?				
Has the stream reach upstream of the crossing supported an anadromous fish population?				
Source Crossing Type				
Crossing Type				
Crossing Type Culvert ID				
General Description: Concrete pipe culvert with a concrete headwall.				
Photos				
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_15.69_UU				
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_15.69_UD				
3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_15.69_DU 3.4_BUT_99_15.69_DD				
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_15.69_DD				
Detailed Survey Required?				
Detailed Survey Required?: No				

County: Butte Route: 99 Postmile: 15.69 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION					
County: BUT	Rou	ute: 99			PM: 15.71
	Sur	vey Information			
Date 2/5/2016	Time 12:42	Agency Performing	g Survey	HDR]
Data Recorder NO	(24 hr. clock)	Survey Team N	O, ST		
	Si	te Information			
		GPS Data			
Longitude -12	21.68886 Latitude	39.530831			
GPS HDOP	1 Loc. of GPS Point	above outlet		PM	
	Hyd	rologic Information			
Stream Name unknown		S	ource:		
Basin East Sid	de	Quad Name (7.5')	SHIPPEE		
USGS Hydrologic Unit LOWER	R_BUTTE	CalWater Unit HA	Butte Basin		
CalWater Unit HU COLUS	SA BASIN	CalWater Unit HSA	Butte Basin		
	Natu	ral Stream Channel?			
Is there a definable channel upstre		No	7		
Is the primary function for storm wa		Yes	=		
	_	No	 		
Is the waterway a concrete-lined flo					
	Potentia	al Fish Bearing Stream	?		
Does the site contain an active cha	annel width >2 feet?	No]		
Is the stream gradient < 20%?		Yes]		
		almonid ESU/DPS			
ESU (Chinook and Coho Salmon)					
Central Valley Fall_Late Fall-Run (Chinook				
Central Valley Steelhead					
Central Valley Spring-Run Chinook					
	Historio	Anadromous Reach?			
Has the stream reach upstream of	the crossing supported an anadr	omous fish population?	No		
Source					
		Crossing Type			
Crossing Type Culvert		ID			
General Description: Concrete pip	e culvert with a concrete headwa				
		Photos			
3.1 Upstream Looking Upstream -					
3.2 Upstream Looking Downstrear	<u></u>				
3.3 Downstream Looking Upstream	<u> </u>				
3.4 Downstream Looking Downstr	eam - Photo ID 3.4_BUT_99	_15.71_DD			
Detailed Survey Required?					
Detailed Survey Required?:	No				

County: Butte Route: 99 Postmile: 15.71 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION				
County: BUT Route: 99	PM: 15.80			
Survey Information	20000			
Date 2/5/2016 Time 12:00 Agency Performing Surve	y HDR			
Data Recorder ST, NO (24 hr. clock) Survey Team ST, NO				
Site Information				
GPS Data				
Longitude -121.688862 Latitude 39.532213				
GPS HDOP 1 Loc. of GPS Point above outlet	PM			
Hydrologic Information				
Stream Name unknown Source:				
Basin East Side Quad Name (7.5') SHIF	PPEE			
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte	e Basin			
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butter	e Basin			
Natural Stream Channel?				
Is there a definable channel upstream of culvert?				
Is the primary function for storm water runoff or road drainage?: Yes				
Is the waterway a concrete-lined flood control channel?				
Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 feet?				
Is the stream gradient < 20%?				
Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhead)				
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead				
Historic Anadromous Reach?				
Has the stream reach upstream of the crossing supported an anadromous fish population?	No			
Source				
Crossing Type				
Crossing Type Culvert ID				
General Description: Concrete pipe culvert with a concrete headwall.				
Photos				
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_15.80_UU				
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_15.80_UD				
3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_15.80_DU				
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_15.80_DD				
Detailed Survey Required?				
Detailed Survey Required?: No				
B 4 B 4 6 6 4 5 6 4 6				

County: Butte Route: 99 Postmile: 15.80 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 15.89	
	Survey Information		
Date 2/5/2016 Time	11:25 Agency Performing Survey HDR		
Data Recorder NO	24 hr. clock) Survey Team NO, ST		
	Site Information		
	GPS Data		
Longitude -121.68885	Latitude 39.533578		
GPS HDOP 1	Loc. of GPS Point above inlet PM		
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5') SHIPPEE		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel upstream of culver	t? No		
Is the primary function for storm water runoff or	road drainage?: Yes		
Is the waterway a concrete-lined flood control of			
,	Potential Fish Bearing Stream?		
Does the site contain an active channel width >			
Is the stream gradient < 20%?	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Sto			
Central Valley Spring-Run Chinook	senieau)		
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing	supported an anadromous fish population?		
Source			
	Crossing Type		
Crossing Type Culvert	ID		
General Description: Concrete pipe culvert with	h a concrete headwall.		
	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_15.89_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_15.89_UD		
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_15.89_DU		
3.4 Downstream Looking Downstream - Photo	ID 3.4_BUT_99_15.89_DD		
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 15.89 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION					
County: BUT	Ro	ute: 99			PM: 15.97
	Sur	rvey Information			
Date 2/5/2016	Time 11:19	Agency Performing	g Survey	HDR	
Data Recorder ST, NO	(24 hr. clock)	Survey Team S	ST, NO		
	S	ite Information			
		GPS Data			
Longitude -121.	688862 Latitude	39.534695			
GPS HDOP	1 Loc. of GPS Point	above outlet		PM	
	Нус	drologic Information			
Stream Name unknown		S	ource:		
Basin East Side	e	Quad Name (7.5')	SHIPPEE		
USGS Hydrologic Unit LOWER	_BUTTE	CalWater Unit HA	Butte Basin		
CalWater Unit HU COLUSA	A BASIN	CalWater Unit HSA	Butte Basin		
	Natu	ural Stream Channel?			
Is there a definable channel upstrea	m of culvert?	No			
Is the primary function for storm wat	er runoff or road drainage?:	Yes			
Is the waterway a concrete-lined floo	_	No			
•		ial Fish Bearing Stream	?		
Does the site contain an active char					
Does the site contain an active char Is the stream gradient < 20%?	inei width >2 leet?	No yes	<u></u>		
is the stream gradient < 2070:	S	Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) o		amonia 200/Di 0			
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Cl	ninook				
Central Valley Steelhead					
	Histori	c Anadromous Reach?			
Has the stream reach upstream of the	ne crossing supported an anad	romous fish population?	No		
Source					
		Crossing Type			
Crossing Type Culvert		ID			
General Description: Concrete pipe	e culvert with a concrete headw	all.			
		Photos			
3.1 Upstream Looking Upstream - F	Photo I 3.1_BUT_99	_15.97_UU			
3.2 Upstream Looking Downstream	- Photo I 3.2_BUT_99	_15.97_UD			
3.3 Downstream Looking Upstream	- Photo ID 3.3_BUT_99	_15.97_DU			
3.4 Downstream Looking Downstre	am - Photo ID 3.4_BUT_99)_15.97_DD			
Detailed Survey Required?					
Detailed Survey Required?:	No				

County: Butte Route: 99 Postmile: 15.97 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 16.09	
	Survey Information		
Date 2/5/2016 Time 1	0:55 Agency Performing Survey	HDR	
Data Recorder NO (24	hr. clock) Survey Team NO, ST		
	Site Information		
	GPS Data		
Longitude -121.688836 Lat	itude 39.536799		
GPS HDOP 1 Loc	c. of GPS Point	PM	
	Hydrologic Information		
Stream Name Shippee Creek	Source: sign at site		
Basin East Side	Quad Name (7.5') SHIPPEE		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel upstream of culvert?	Yes Yes		
Is the primary function for storm water runoff or roa			
Is the waterway a concrete-lined flood control char			
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 f	eet? Yes		
Is the stream gradient < 20%?	Yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steell	head)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing su			
Source Tributary to Butte Creek, CV Sprin	g-run 5-Year Status Review (NMFS 2005)		
	Crossing Type		
Crossing Type bridge w/o potential passag			
General Description: Double concrete bay bridge			
	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_16.09_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_16.09_UD		
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_16.09_DU		
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_16.09_DD		
	Detailed Survey Required?		
Detailed Survey Required?: No			
Report Date 03-15-2016			

County: Butte Route: 99 Postmile: 16.09 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION				
County: BUT Route: 99 PM	: 16.38			
Survey Information				
Date 2/5/2016 Time 10:38 Agency Performing Survey HDR				
Data Recorder NO (24 hr. clock) Survey Team NO, ST				
Site Information				
GPS Data				
Longitude -121.688823 Latitude 39.5408				
GPS HDOP 1 Loc. of GPS Point above outlet PM				
Hydrologic Information				
Stream Name unknown Source:				
Basin East Side Quad Name (7.5') SHIPPEE				
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin				
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin				
Natural Stream Channel?				
Is there a definable channel upstream of culvert?				
Is the primary function for storm water runoff or road drainage?: Yes				
Is the waterway a concrete-lined flood control channel?				
Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 feet?				
Is the stream gradient < 20%? yes				
Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhead)				
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead				
Historic Anadromous Reach?				
Has the stream reach upstream of the crossing supported an anadromous fish population? No				
Source Crossing Type				
Crossing Type				
Crossing Type Culvert ID General Description: Three concrete pipe culverts with a concrete pipe headwall.	1			
Photos 3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_16.38_UU				
3.2 Upstream Looking Downstream - Photo I 3.2 BUT_99_16.38_UD 3.3 Downstream Looking Upstream Photo ID 3.3 BUT_99_16.38_DI				
3.3 Downstream Looking Upstream - Photo ID 3.4 Downstream Looking Downstream Photo ID 3.4 Downstream Looking Downstream Photo ID 3.4 Downstream Looking Downstream Photo ID				
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_16.38_DD				
Detailed Survey Required?				
Detailed Survey Required?: No				

County: Butte Route: 99 Postmile: 16.38 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION	RECONNAISSANCE SURVEY INFORMATION			
County: BUT Route: 99 PM:	16.43			
Survey Information				
Date 2/5/2016 Time 10:34 Agency Performing Survey HDR				
Data Recorder NO (24 hr. clock) Survey Team NO, ST				
Site Information				
GPS Data				
Longitude -121.68883 Latitude 39.541542				
GPS HDOP 1 Loc. of GPS Point above outlet PM				
Hydrologic Information				
Stream Name unknown Source:				
Basin East Side Quad Name (7.5') SHIPPEE				
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin				
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin				
Natural Stream Channel?				
Is there a definable channel upstream of culvert?				
Is the primary function for storm water runoff or road drainage?: Yes				
Is the waterway a concrete-lined flood control channel?				
Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 feet?				
Is the stream gradient < 20%?				
Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhead)				
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead				
Historic Anadromous Reach?				
Has the stream reach upstream of the crossing supported an anadromous fish population?				
Source Crossing Type				
Crossing Type				
Crossing Type Culvert ID				
General Description: Concrete pipe culvert with a concrete headwall.				
Photos				
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_16.43_UU 3.2 Upstream Looking Deventment Photo I				
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_16.43_UD				
3.3 Downstream Looking Upstream - Photo ID 3.3 BUT_99_16.43_DU 3.4 Downstream Looking Downstream - Photo ID				
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_16.43_DD				
Detailed Survey Required?				
Detailed Survey Required?: No				

County: Butte Route: 99 Postmile: 16.43 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION				
County: BUT	Route: 99	PM: 16.46		
	Survey Information			
Date 2/5/2016 Time 10	Agency Performing Survey)R		
Data Recorder NO (24 hr	Survey Team NO, ST			
	Site Information			
	GPS Data			
Longitude -121.68882 Latitu	ude 39.542081			
GPS HDOP 1 Loc.	of GPS Point above outlet	PM		
	Hydrologic Information			
Stream Name unknown	Source:			
Basin East Side	Quad Name (7.5') SHIPPEE			
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin			
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin			
	Natural Stream Channel?			
Is there a definable channel upstream of culvert?	No			
Is the primary function for storm water runoff or roac	d drainage?:			
Is the waterway a concrete-lined flood control chann				
is the waterway a concrete-lined flood control chair	····			
	Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 fee	et? No			
Is the stream gradient < 20%?	yes			
	Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)			
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead				
	Historic Anadromous Reach?			
Has the stream reach upstream of the crossing supp	ported an anadromous fish population?			
Source				
	Crossing Type			
Crossing Type Culvert	ID			
General Description: Concrete pipe culvert with a concrete headwall.				
	Photos			
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_16.46_UU			
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_16.46_UD			
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_16.46_DU			
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_16.46_DD			
Detailed Survey Required?				
Detailed Survey Required?: No				

County: Butte Route: 99 Postmile: 16.46 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT Route: 99	PM: 16.57		
Survey Information			
Date 2/5/2016 Time 10:15 Agency Performing Survey	HDR		
Data Recorder ST, NO (24 hr. clock) Survey Team ST, NO			
Site Information			
GPS Data			
Longitude -121.688809 Latitude 39.543598			
GPS HDOP 0.1 Loc. of GPS Point above outlet	PM		
Hydrologic Information			
Stream Name unknown Source:			
Basin East Side Quad Name (7.5') SHIPPEE			
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin			
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin			
Natural Stream Channel?			
Is there a definable channel upstream of culvert?			
Is the primary function for storm water runoff or road drainage?: Yes			
Is the waterway a concrete-lined flood control channel?			
Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 feet?			
Is the stream gradient < 20%?			
Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhead)			
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
Historic Anadromous Reach?	7		
Has the stream reach upstream of the crossing supported an anadromous fish population? No]		
Source Crossing Type			
Crossing Type Culvert ID			
General Description: Concrete pipe culvert with a concrete headwall.			
Photos			
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_16.57_UU			
3.2 Upstream Looking Downstream - Photo I 3.2 BUT_99_16.57_UD			
3.3 Downstream Looking Upstream - Photo ID 3.3 BUT_99_16.57_DU			
3.4 Downstream Looking Downstream - Photo ID 3.4 Downstream Looking Downstream - Photo ID			
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 16.57 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION				
County: BUT	Route: 99	PM: 16.68		
	Survey Information			
Date 2/5/2016 Time 9:	56 Agency Performing Survey HDR			
Data Recorder NO (24 hr	clock) Survey Team NO, ST			
	Site Information			
	GPS Data			
Longitude -121.688819 Latitu	de 39.545446			
GPS HDOP 1 Loc. (of GPS Point above outlet PM			
	Hydrologic Information			
Stream Name unknown	Source:			
Basin East Side	Quad Name (7.5') SHIPPEE			
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin			
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin			
	Natural Stream Channel?			
Is there a definable channel upstream of culvert?	No			
Is the primary function for storm water runoff or road	drainage?: Yes			
Is the waterway a concrete-lined flood control chann				
,	Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 fee				
Is the stream gradient < 20%?	yes			
ESU (Chinook and Coho Salmon) or DPS (Steelhe	Salmonid ESU/DPS			
Central Valley Spring-Run Chinook	au)			
Central Valley Fall_Late Fall-Run Chinook	_			
Central Valley Steelhead				
Samuel Valley Steemista	Historic Anadromous Reach?			
Has the stream reach upstream of the crossing supp				
Source				
	Crossing Type			
Crossing Type Culvert	ID			
General Description: Concrete pipe culvert with a concrete pipe culvert wi	oncrete headwall.			
Photos				
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_16.68_UU			
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_16.68_UD			
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_16.68_DU			
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_16.68_DD			
Detailed Survey Required?				
Detailed Survey Required?: No				

County: Butte Route: 99 Postmile: 16.68 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT Route: 99	PM: 16.77		
Survey Information			
Date 2/5/2016 Time 9:46 Agency Performing Survey	HDR		
Data Recorder ST, NO (24 hr. clock) Survey Team ST, NO			
Site Information			
GPS Data			
Longitude -121.688816 Latitude 39.546753			
GPS HDOP 0.1 Loc. of GPS Point above outlet	PM		
Hydrologic Information			
Stream Name unknown Source:			
Basin East Side Quad Name (7.5') SHIPPEE			
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin			
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin			
Natural Stream Channel?			
Is there a definable channel upstream of culvert?			
Is the primary function for storm water runoff or road drainage?: Yes			
Is the waterway a concrete-lined flood control channel?			
Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 feet?			
Is the stream gradient < 20%?			
Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhead)			
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
Historic Anadromous Reach?	1		
Has the stream reach upstream of the crossing supported an anadromous fish population? No			
Source Crossing Type			
Crossing Type Culvert ID			
General Description: Concrete pipe culvert with a concrete headwall.	1		
Photos			
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_16.77_UU			
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_16.77_UD			
3.3 Downstream Looking Upstream - Photo ID 3.3 BUT_99_16.77_DU			
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_16.77_DD			
Detailed Survey Required?			
Detailed Survey Required?: No			
Potanica da roy required			

County: Butte Route: 99 Postmile: 16.77 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 16.91	
	Survey Information		
Date 2/5/2016 Time	9:29 Agency Performing Survey HDR		
Data Recorder NO (2	24 hr. clock) Survey Team NO, ST		
	Site Information		
	GPS Data		
Longitude -121.688837 L	atitude 39.548808		
GPS HDOP 1 L	oc. of GPS Point above outlet PM		
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5') SHIPPEE		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel upstream of culvert			
Is the primary function for storm water runoff or			
Is the waterway a concrete-lined flood control of			
is the waterway a concrete-lined flood control of			
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >	2 feet? No		
Is the stream gradient < 20%?	yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Ste	elhead)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook	<u></u>		
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing	supported an anadromous fish population?		
Source			
	Crossing Type		
Crossing Type Culvert	ID		
General Description: Concrete pipe culvert with a concrete headwall.			
	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_16.91_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_16.91_UD		
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_16.91_DU		
3.4 Downstream Looking Downstream - Photo	ID 3.4_BUT_99_16.91_DD		
Detailed Survey Required?			
Detailed Survey Required?: No			
B			

County: Butte Route: 99

Postmile: 16.91 Survey Date: 02/05/2016

Upstream Looking Upstream







Downstream Looking Upstream

Downstream Looking Downstream





RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 17.03	
	Survey Information		
Date 2/5/2016 Time 9	:22 Agency Performing Survey HDR		
Data Recorder ST, NO (24 h	r. clock) Survey Team ST, NO		
	Site Information		
	GPS Data		
Longitude -121.688833 Latit	ude 39.550316		
GPS HDOP 1 Loc.	of GPS Point above outlet PM		
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5') SHIPPEE		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	\Box	
	Natural Stream Channel?		
Is there a definable channel upstream of culvert?	No No		
Is the primary function for storm water runoff or road			
Is the waterway a concrete-lined flood control chann			
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fe	et? No		
Is the stream gradient < 20%?	yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing sup	ported an anadromous fish population?		
Source			
	Crossing Type		
Crossing Type Culvert	ID		
General Description: Concrete pipe culvert with a concrete headwall.			
	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_17.03_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_17.03_UD		
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_17.03_DU		
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_17.03_DD		
	Detailed Survey Required?		
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 17.03 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT Route: 99 PM:	17.16		
Survey Information			
Date 2/5/2016 Time 9:08 Agency Performing Survey HDR			
Data Recorder NO (24 hr. clock) Survey Team NO, ST			
Site Information			
GPS Data			
Longitude -121.688611 Latitude 39.552174			
GPS HDOP 1 Loc. of GPS Point above inlet PM			
Hydrologic Information			
Stream Name unknown Source:			
Basin East Side Quad Name (7.5') SHIPPEE			
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin			
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin			
Natural Stream Channel?			
Is there a definable channel upstream of culvert?			
Is the primary function for storm water runoff or road drainage?: Yes			
Is the waterway a concrete-lined flood control channel?			
Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 feet?			
Is the stream gradient < 20%?			
Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhead)			
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
Historic Anadromous Reach?			
Has the stream reach upstream of the crossing supported an anadromous fish population? No			
Source Crossing Type			
Crossing Type			
Crossing Type Culvert ID			
General Description: Concrete pipe culvert with a concrete headwall.			
Photos			
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_17.16_UU 3.2_Upstream Looking Developer Photo I			
3.2 Upstream Looking Downstream - Photo I 3.2 BUT_99_17.16_UD 3.3 DOWNstream Looking Upstream - Photo ID 3.3 DOWNstream Looking Upstream - Photo ID			
3.3 Downstream Looking Upstream - Photo ID 3.3 BUT_99_17.16_DU 3.4 Downstream Looking Downstream Rhote ID 3.4 Downstream Looking Downstream Rhote ID			
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_17.16_DD			
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 17.16 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION					
County: BUT	Route	: 99			PM: 17.33
	Survey	Information			
Date 2/5/2016	ime 8:59	Agency Performing	Survey	HDR]
Data Recorder NO	(24 hr. clock)	Survey Team NO	D, ST		
	Site I	nformation			
		PS Data			
Longitude -121.6	8629 Latitude	39.554719			
GPS HDOP	1 Loc. of GPS Point	above inlet		PM	
	Hydrolo	gic Information			
Stream Name unknown		So	ource:		
Basin East Side	Qua	ad Name (7.5')	SHIPPEE		
USGS Hydrologic Unit LOWER_E	UTTE Cal	Water Unit HA	Butte Basin		
CalWater Unit HU COLUSA I	SASIN Cal	Water Unit HSA	Butte Basin		
	Natural S	Stream Channel?			
Is there a definable channel upstream		No No	7		
Is the primary function for storm water		Yes	<u>-</u> -		
	_	No	_ _		
Is the waterway a concrete-lined flood		<u> </u>			
	Potential Fi	sh Bearing Stream?			
Does the site contain an active chann	el width >2 feet?	No			
Is the stream gradient < 20%?		yes			
		onid ESU/DPS			
ESU (Chinook and Coho Salmon) or	DPS (Steelhead)				
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chi	ook				
Central Valley Steelhead					
		adromous Reach?			
Has the stream reach upstream of the	crossing supported an anadromo	us fish population?	No		
Source	0				
. = [-	Cro	ssing Type			
Crossing Type Culvert	uh cent with a seriousta basedwall	ID			
General Description: Concrete pipe culvert with a concrete headwall.					
O.A. Hasters and J. H. H. H. S.		Photos			
3.1 Upstream Looking Upstream - Ph					
3.2 Upstream Looking Downstream -					
3.3 Downstream Looking Upstream -					
3.4 Downstream Looking Downstream					
Detailed Survey Required?					
Detailed Survey Required?:	No				

County: Butte Route: 99 Postmile: 17.33 Survey Date: 02/05/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT Route: 99 PM:	17.41		
Survey Information			
Date 2/4/2016 Time 14:50 Agency Performing Survey HDR			
Data Recorder NO (24 hr. clock) Survey Team NO, ST			
Site Information			
GPS Data			
Longitude -121.688852 Latitude 39.555792			
GPS HDOP 1 Loc. of GPS Point above outlet PM			
Hydrologic Information			
Stream Name unknown Source:			
Basin East Side Quad Name (7.5') SHIPPEE			
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin			
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin			
Natural Stream Channel?			
Is there a definable channel upstream of culvert?			
Is the primary function for storm water runoff or road drainage?: Yes			
Is the waterway a concrete-lined flood control channel?			
Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 feet?			
Is the stream gradient < 20%? yes			
Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhead)			
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
Historic Anadromous Reach?			
Has the stream reach upstream of the crossing supported an anadromous fish population?			
Source Crossing Type			
Crossing Type			
Crossing Type Culvert ID			
General Description: Double concrete pipe culvert with a conrete headwall.			
Photos			
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_17.41_UU			
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_17.41_UD			
3.3 Downstream Looking Upstream - Photo ID 3.3 BUT_99_17.41_DU			
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_17.41_DD			
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 17.41 Survey Date: 02/04/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 17.51	
20000	Survey Information		
Date 2/4/2016 Time 14:4	4 Agency Performing Survey HDR		
Data Recorder ST, NO (24 hr. cl	ock) Survey Team ST, NO		
	Site Information		
	GPS Data		
Longitude -121.688858 Latitude	39.557376		
GPS HDOP 0.1 Loc. of	GPS Point above outlet PM	1	
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5') SHIPPEE		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel upstream of culvert?	No		
Is the primary function for storm water runoff or road d	rainage?: Yes		
Is the waterway a concrete-lined flood control channel			
as the materials a control miles most control chamber	·		
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 feet?	No		
Is the stream gradient < 20%?	yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhead	i) 		
Central Valley Spring-Run Chinook	=		
Central Valley Fall_Late Fall-Run Chinook	_		
Central Valley Steelhead	Lilling to the Anna Income Park Control		
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing suppor	rted an anadromous fish population?		
Source	Crossing Type		
Crossing Type Culvert	ID		
General Description: Double concrete pipe culvert with			
Photos			
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_17.51_UU		
	3.2_BUT_99_17.51_UD	=	
	3.3_BUT_99_17.51_DU	=	
- '	3.4_BUT_99_17.51_DD	=	
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 17.51 Survey Date: 02/04/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT Route: 99 PM: 17	7.67		
Survey Information			
Date 2/4/2016 Time 14:28 Agency Performing Survey HDR			
Data Recorder NO (24 hr. clock) Survey Team NO, ST			
Site Information			
GPS Data			
Longitude -121.688885 Latitude 39.559632			
GPS HDOP 1 Loc. of GPS Point above outlet PM			
Hydrologic Information			
Stream Name unknown Source:			
Basin East Side Quad Name (7.5') SHIPPEE			
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin			
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin			
Natural Stream Channel?			
Is there a definable channel upstream of culvert?			
Is the primary function for storm water runoff or road drainage?: Yes			
Is the waterway a concrete-lined flood control channel?			
Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 feet?			
Is the stream gradient < 20%? yes			
Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhead)			
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
Historic Anadromous Reach?			
Has the stream reach upstream of the crossing supported an anadromous fish population?			
Source State of Trans.			
Crossing Type			
Crossing Type Culvert ID			
General Description: Double concrete box culvert.			
Photos			
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_17.67_UU			
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_17.67_UD			
3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_17.67_DU			
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_17.67_DD			
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 17.67 Survey Date: 02/04/2016

Upstream Looking Upstream







Downstream Looking Upstream

Downstream Looking Downstream





RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 17.71	
	Survey Information		
Date 2/4/2016 Time 14	Agency Performing Survey HDR		
Data Recorder ST, NO (24 hr	Survey Team ST, NO		
	Site Information		
	GPS Data		
Longitude -121.688901 Latitu	de 39.56032		
GPS HDOP 1 Loc.	of GPS Point above outlet F	PM	
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5') SHIPPEE		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel upstream of culvert?	No		
Is the primary function for storm water runoff or road	d drainage?: Yes		
Is the waterway a concrete-lined flood control chann			
.,	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fee			
Is the stream gradient < 20%?	yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead	Historia Anadramana Bassi C		
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing sup	ported an anadromous fish population?		
Source	Crossing Type		
Crossing Type Culvert	ID		
General Description: Double concrete pipe culvert		1	
Photos			
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_17.71_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_17.71_UD	=	
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_17.71_DU	<u>=</u>	
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_17.71_DD	=	
	Detailed Survey Required?		
Detailed Survey Required?: No	T		
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 17.71 Survey Date: 02/04/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 17.78	
	Survey Information		
Date 2/4/2016 Time	14:00 Agency Performing Survey HD	R	
Data Recorder NO	(24 hr. clock) Survey Team NO, ST		
	Site Information		
	GPS Data		
Longitude -121.688872	Latitude 39.561486		
GPS HDOP 2	Loc. of GPS Point above outlet	PM	
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5') SHIPPEE		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel upstream of culv			
Is the primary function for storm water runoff of			
Is the waterway a concrete-lined flood control			
	Potential Fish Bearing Stream?		
Does the site contain an active channel width Is the stream gradient < 20%?	>2 feet? No yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (S	Steelhead)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossir	ng supported an anadromous fish population?		
Source			
	Crossing Type		
Crossing Type Culvert	ID		
General Description: Concrete pipe culvert v	vith a concrete headwall.		
	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_17.78_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_17.78_UD		
3.3 Downstream Looking Upstream - Photo I	D 3.3_BUT_99_17.78_DU		
3.4 Downstream Looking Downstream - Pho	to ID 3.4_BUT_99_17.78_DD		
	Detailed Survey Required?		
Detailed Survey Required?: No			
Report Date 03-15-2016			

County: Butte Route: 99 Postmile: 17.78 Survey Date: 02/04/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 17.91	
	Survey Information		
Date 2/4/2016 Time	13:45 Agency Performing Survey HDR		
Data Recorder ST, NO (2	4 hr. clock) Survey Team ST, NO		
	Site Information		
	GPS Data		
Longitude -121.688901 La	39.563233		
GPS HDOP 1 Lo	oc. of GPS Point above outlet PM		
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5') SHIPPEE		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel upstream of culvert?			
Is the primary function for storm water runoff or re			
Is the waterway a concrete-lined flood control cha			
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2	feet? No		
Is the stream gradient < 20%?	yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Stee	elhead)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing s	supported an anadromous fish population? Unknown		
Source Tributary to Butte Creek, CV Spr	ing-run 5-Year Status Review (NMFS 2005)		
	Crossing Type		
Crossing Type Culvert	ID		
General Description: Double concrete pipe culvert with a concrete headwall.			
	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_17.91_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_17.91_UD		
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_17.91_DU		
3.4 Downstream Looking Downstream - Photo II	D 3.4_BUT_99_17.91_DD		
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 17.91 Survey Date: 02/04/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 18.06	
	Survey Information		
Date 2/4/2016 Time	13:28 Agency Performing Survey HDR		
Data Recorder ST, NO	(24 hr. clock) Survey Team ST, NO		
	Site Information		
	GPS Data		
Longitude -121.688881	Latitude 39.565133		
GPS HDOP 5	Loc. of GPS Point above outlet PM		
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5') SHIPPEE		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
le there a definely shown a unetreem of only on			
Is there a definable channel upstream of culver			
Is the primary function for storm water runoff or			
Is the waterway a concrete-lined flood control of	hannel? No		
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >	2 feet? No		
Is the stream gradient < 20%?	yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Sto	eelhead)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing	supported an anadromous fish population?		
Source			
	Crossing Type		
Crossing Type Culvert	ID		
General Description: Concrete pipe culvert with	th a concrete headwall.		
Photos			
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_18.06_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_18.06_UD		
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_18.06_DU		
3.4 Downstream Looking Downstream - Photo	ID 3.4_BUT_99_18.06_DD		
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 18.06

tmile: 18.06 Survey Date: 02/04/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 18.20	
	Survey Information		
Date 2/4/2016 Time 13	3:08 Agency Performing Survey HDR		
Data Recorder ST, NO (24 hr	r. clock) Survey Team ST, NO		
	Site Information		
	GPS Data		
Longitude -121.688873 Latitu	ude 39.567426		
GPS HDOP 2 Loc.	of GPS Point above outlet PM		
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5') SHIPPEE		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel upstream of culvert?	No		
Is the primary function for storm water runoff or road	d drainage?:		
Is the waterway a concrete-lined flood control chann			
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fee	et? No		
Is the stream gradient < 20%?	yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelho	ead)		
Central Valley Spring-Run Chinook	<u> </u>		
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing sup	ported an anadromous fish population?		
Source			
	Crossing Type		
Crossing Type Culvert	ID		
General Description: Concrete pipe culvert with a concrete headwall.			
	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_18.20_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_18.20_UD		
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_18.20_DU		
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_18.20_DD		
	Detailed Survey Required?		
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 18.20 Survey Date: 02/04/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECON	NAISSANCE SURVEY INFORMATION	
County: BUT	Route: 99	PM: 18.60
	Survey Information	
Date 2/4/2016 Time	12:28 Agency Performing Survey	HDR
Data Recorder NO (2	4 hr. clock) Survey Team NO, ST	
	Site Information	
	GPS Data	
Longitude -121.688885 La	atitude 39.574898	
GPS HDOP 2 Lo	oc. of GPS Point above outlet	PM
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Side	Quad Name (7.5') SHIPPEE	
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?		
Is the primary function for storm water runoff or r		
Is the waterway a concrete-lined flood control ch	annel? No	
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2	! feet? No	
Is the stream gradient < 20%?	yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Stee	elhead)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing s	supported an anadromous fish population?	
Source		
	Crossing Type	
Crossing Type Culvert	ID	
General Description: Concrete pipe culvert with	a concrete headwall.	
	Photos	
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_18.70_UU	
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_18.70_UD	
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_18.70_DU	
3.4 Downstream Looking Downstream - Photo I	D 3.4_BUT_99_18.70_DD	
	Detailed Survey Required?	
Detailed Survey Required?: No		
Report Date 03-15-2016		

County: Butte Route: 99 Postmile: 18.60 Survey Date: 02/04/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION	
	18.80
Survey Information	
Date 2/4/2016 Time 12:19 Agency Performing Survey HDR	
Data Recorder ST, NO (24 hr. clock) Survey Team ST, NO	
Site Information	
GPS Data	
Longitude -121.688934 Latitude 39.575709	
GPS HDOP 3 Loc. of GPS Point above outlet PM	
Hydrologic Information	
Stream Name unknown Source:	
Basin East Side Quad Name (7.5') SHIPPEE	
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin	
CalWater Unit HSA Butte Basin	
Natural Stream Channel?	
Is there a definable channel upstream of culvert?	
Is the primary function for storm water runoff or road drainage?: Yes	
Is the waterway a concrete-lined flood control channel?	
Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 feet?	
Is the stream gradient < 20%?	
Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhead)	
Central Valley Spring-Run Chinook	
Central Valley Fall_Late Fall-Run Chinook	
Central Valley Steelhead	
Historic Anadromous Reach?	
Has the stream reach upstream of the crossing supported an anadromous fish population?	
Source	
Crossing Type	
Crossing Type Culvert ID	
General Description: Concrete box culvert with a concrete headwall.	
Photos	
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_18.80_UU	
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_18.80_UD	
3.3 Downstream Looking Upstream - Photo ID 3.3 BUT_99_18.80_DU	
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_18.80_DD	
Detailed Survey Required?	
Detailed Survey Required?: No	
Report Date 03-15-2016	

County: Butte Route: 99 Postmile: 18.80 Survey Date: 03/02/2016



RECONNAISSANCE SURVEY INFORMATION					
County: BUT Route: 99 PM:	19.30				
Survey Information					
Date 2/4/2016 Time 12:01 Agency Performing Survey HDR					
Data Recorder ST, NO (24 hr. clock) Survey Team ST, NO					
Site Information					
GPS Data					
Longitude -121.688914 Latitude 39.583147	_				
GPS HDOP 2 Loc. of GPS Point above outlet PM					
Hydrologic Information					
Stream Name unknown Source:					
Basin East Side Quad Name (7.5') SHIPPEE					
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin					
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin					
Natural Stream Channel?					
Is there a definable channel upstream of culvert?					
Is the primary function for storm water runoff or road drainage?: Yes					
Is the waterway a concrete-lined flood control channel?					
Potential Fish Bearing Stream?					
Does the site contain an active channel width >2 feet?					
Is the stream gradient < 20%? yes					
Salmonid ESU/DPS					
ESU (Chinook and Coho Salmon) or DPS (Steelhead)					
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chinook					
Central Valley Steelhead					
Historic Anadromous Reach?					
Has the stream reach upstream of the crossing supported an anadromous fish population?					
Source					
Crossing Type					
Crossing Type Culvert ID					
General Description: Concrete pipe culvert with a concrete headwall.					
Photos					
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_19.30_UU					
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_19.30_UD					
3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_19.30_DU					
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_19.30_DD					
Detailed Survey Required?: No No					

County: Butte Route: 99 Postmile: 19.30 Survey Date: 02/04/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION	ON				
County: BUT Route: 99	PM: 19.51				
Survey Information					
Date 2/4/2016 Time 11:30 Agency Performing Survey	HDR				
Data Recorder ST, NO (24 hr. clock) Survey Team ST, NO					
Site Information					
GPS Data					
Longitude -121.688752 Latitude 39.586247					
GPS HDOP 3 Loc. of GPS Point above inlet	PM				
Hydrologic Information					
Stream Name GOLD RUN CR Source: sign a	at site				
Basin East Side Quad Name (7.5') SHIPPEE					
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin					
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin					
Natural Stream Channel?					
Is there a definable channel upstream of culvert? Yes					
Is the primary function for storm water runoff or road drainage?:					
Potential Fish Bearing Stream?					
Does the site contain an active channel width >2 feet?					
Is the stream gradient < 20%?					
Salmonid ESU/DPS					
ESU (Chinook and Coho Salmon) or DPS (Steelhead)					
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chinook					
Central Valley Steelhead					
Historic Anadromous Reach?					
Has the stream reach upstream of the crossing supported an anadromous fish population? Unknown	n _				
Source Crossing Type					
Crossing Type					
Crossing Type bridge w/o potential passage constraints ID 12-0122					
General Description: Double bay bridge.					
Photos					
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_19.51_UU					
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_19.51_UD					
3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_19.51_DU					
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_19.51_DD					
Detailed Survey Required?					
Detailed Survey Required?: No					
Report Date 03-15-2016					

County: Butte Route: 99 Postmile: 19.51 Survey Date: 02/04/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION					
County: BUT	Route: 99	PM: 19.58			
	Survey Information				
Date 3/2/2016 Time	14:53 Agency Performing Survey HDR				
Data Recorder NO	(24 hr. clock) Survey Team NO, MA				
	Site Information				
	GPS Data				
Longitude -121.68875	Latitude 39.58727				
GPS HDOP 1.8	Loc. of GPS Point above inlet PM				
	Hydrologic Information				
Stream Name unknown	Source:				
Basin East Side	Quad Name (7.5') SHIPPEE				
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin				
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin				
	Natural Stream Channel?				
Is there a definable channel upstream of culver	t? No				
Is the primary function for storm water runoff or					
Is the waterway a concrete-lined flood control of					
is the waterway a contrete-lined flood control of					
	Potential Fish Bearing Stream?				
Does the site contain an active channel width >	-2 feet? No				
Is the stream gradient < 20%?	Yes				
	Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Ste	eelhead)				
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chinook					
Central Valley Steelhead					
	Historic Anadromous Reach?				
Has the stream reach upstream of the crossing	supported an anadromous fish population? Unknown				
Source	Out of the Town				
	Crossing Type				
Crossing Type Culvert	ID				
General Description: Concrete pipe culvert in a concrete form.					
	Photos				
3.1 Upstream Looking Upstream - Photo I	BUT_99_19.58_3.1				
3.2 Upstream Looking Downstream - Photo I	BUT_99_19.58_3.2				
3.3 Downstream Looking Upstream - Photo ID					
3.4 Downstream Looking Downstream - Photo	ID BUT_99_19.58_3.4				
Detailed Survey Required?					
Detailed Survey Required?: No					
D + D + 00 45 00 15					

County: Butte Route: 99 Postmile: 19.58 Survey Date: 03/02/2016



RECONNAISSANCE SURVEY INFORMATION					
County: BUT Route: 99	PM: 19.72				
Survey Information					
Date 2/4/2016 Time 11:44 Agency Performing Survey HDR					
Data Recorder NO (24 hr. clock) Survey Team NO, ST					
Site Information					
GPS Data					
Longitude -121.688937 Latitude 39.58921					
GPS HDOP 1 Loc. of GPS Point above inlet PM					
Hydrologic Information					
Stream Name unknown Source:					
Basin East Side Quad Name (7.5') SHIPPEE					
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin					
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin					
Natural Stream Channel?					
Is there a definable channel upstream of culvert?					
Is the primary function for storm water runoff or road drainage?: No					
Is the waterway a concrete-lined flood control channel?					
Potential Fish Bearing Stream?					
Does the site contain an active channel width >2 feet? Yes					
Is the stream gradient < 20%?					
Salmonid ESU/DPS					
ESU (Chinook and Coho Salmon) or DPS (Steelhead)					
Central Valley Fall_Late Fall-Run Chinook					
Central Valley Steelhead					
Central Valley Spring-Run Chinook					
Historic Anadromous Reach?					
Has the stream reach upstream of the crossing supported an anadromous fish population? Unknown Unknown					
Source Tributary to Butte Creek, CV Spring-run 5-Year Status Review (NMFS 2005) Crossing Type					
Crossing Type Culvert ID					
General Description: Concrete box culvert. Most likely a irrigation canal.					
Photos					
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_19.72_UU	7				
3.1 Upstream Looking Downstream - Photo I 3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_19.72_UD					
3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_19.72_DU					
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_19.72_DD					
Detailed Survey Required?					
Detailed Survey Required?: Yes					

		DECONNAICO	NIOE O	IDVEV INFORMATION	
		RECONNAISSA	ANCE SU	JRVEY INFORMATION	
County:	BUT	l	Route: 9	9	PM: 19.72
			Access In	formation	
Land Ownershi	p:				
Upstream	n private	Owner(s) North State	e Rendering C	o. Inc.	
Downstream		Owner(s) unknown a			
Accessible fro	om road?				
	Ups	ream? Yes	Limitations	Fencing	
	Downs	ream? Yes	Limitations	Fencing	
Vegetation Re	moval Required?				
Upstream?	No	(If "Yes", comment	and take photo	ograph)	
Photo ID	Photo ID Comments				
Downstream?	ownstream? No (If "Yes", comment and take photograph)				
Photo ID	Comments				
Maintenance /	Assistance Required	l?			
Upstream?	No	(If "Yes", comment	and take photo	ograph)	
Photo ID	noto ID Comments				
Downstream?	No	No (If "Yes", comment and take photograph)			
Photo ID		Comments			
		Conf	ined Space	e Assessment	
If answer is "N DO NOT ENTE	No" to any of the que	stions below, site must h	nave confined	spaces equipment for surveying.	
Is culvert diar	meter > 60"?		Yes		
Can you see a	all the way through the	end of the culvert?	Yes		

Yes

Report Date 03-15-2016

Can you feel a breeze through the culvert?

County: Butte Route: 99 Postmile: 19.72 Survey Date: 02/04/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSA	NCE SURVEY INFORMATION	
	Route: 99	PM: 20.60
	Survey Information	
Date 2/4/2016 Time 11:10	Agency Performing Survey HDR	
Data Recorder NO (24 hr. clock)	Survey Team NO, ST	
	Site Information	
	GPS Data	
Longitude -121.690304 Latitude	39.602044	
GPS HDOP 1 Loc. of GPS Poin	nt above outlet PM	
I	Hydrologic Information	
Stream Name Dry Creek	Source: CT Bridge log	
Basin East Side	Quad Name (7.5') SHIPPEE	
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	=
		
	latural Stream Channel?	
Is there a definable channel upstream of culvert?	Yes	
Is the primary function for storm water runoff or road drainage?:	No	
Is the waterway a concrete-lined flood control channel?	No	
Pote	ential Fish Bearing Stream?	
Does the site contain an active channel width >2 feet?	Yes	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhead)		
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
History	toric Anadromous Reach?	
Has the stream reach upstream of the crossing supported an ar	nadromous fish population? Unknown	
Source Tributary to Butte Creek, CV Spring-run 5-Year	Status Review (NMFS 2005)	
	Crossing Type	
Crossing Type bridge w/o potential passage constraints	ID 12-0196	
General Description:		
	Photos	
3.1 Upstream Looking Upstream - Photo I 3.1_BUT	_99_20.60_UU	
3.2 Upstream Looking Downstream - Photo I 3.2_BUT	_99_20.60_UD	
<u></u>	_99_20.60_DU	
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT	_99_20.60_DD	
Deta	ailed Survey Required?	
Detailed Survey Required?: No		
Report Date 03-15-2016		

County: Butte Route: 99 Postmile: 20.60 Survey Date: 02/04/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION		
County: BUT Route: 99 P	M: 21	.26
Survey Information		
Date 2/4/2016 Time 11:06 Agency Performing Survey HDR		
Data Recorder NO (24 hr. clock) Survey Team NO, ST		
Site Information		
GPS Data		
Longitude -121.691355 Latitude 39.611513		
GPS HDOP 1 Loc. of GPS Point above outlet PM		
Hydrologic Information		
Stream Name unknown Source:		
Basin East Side Quad Name (7.5') SHIPPEE]	
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin]	
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin]	
Natural Stream Channel?		
Is there a definable channel upstream of culvert?		
Is the primary function for storm water runoff or road drainage?: Yes		
Is the waterway a concrete-lined flood control channel?		
Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 feet?		
Is the stream gradient < 20%?		
Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhead)		
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supported an anadromous fish population?		
Source		
Crossing Type		
Crossing Type Culvert ID		1
General Description: PVC pipe culvert with precast end secton. Could not locate upstream end of culvert.		
Photos		
3.1 Upstream Looking Upstream - Photo I n/a		
3.2 Upstream Looking Downstream - Photo I n/a		
3.3 Downstream Looking Upstream - Photo ID 3.3 BUT_99_21.26_DU		
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_21.26_DD		
Detailed Survey Required?		
Detailed Survey Required?: No		

County: Butte Route: 99 Postmile: 21.26 Survey Date: 02/04/2016

Upstream Looking Upstream	Upstream Looking Downstream
N/A	N/A
Downstream Looking Upstream	Downstream Looking Downstream





	RECON	NAISSAN	CE SURVEY IN	IFORMATION	1		
County: BU	Т	Ro	ute: 99			PM:	21.37
		Sui	rvey Information				
Date 2/4/	2016 Time 1	1:02	Agency Performing	g Survey	HDR		
Data Recorder	NO (24 h	r. clock)	Survey Team N	NO, ST			
		S	ite Information				
			GPS Data				
Longitude	-121.691704 Latit	ude	39.61311				
GPS HDOP	1 Loc.	of GPS Point	above inlet		PM		
		Нус	drologic Information				
Stream Name	unknown		S	Source:			
Basin	East Side		Quad Name (7.5')	SHIPPEE			
USGS Hydrologic U			CalWater Unit HA	Butte Basin			
CalWater Unit HU	COLUSA BASIN		CalWater Unit HSA	Butte Basin			
		Nati	ural Stream Channel?				
Is there a definable	channel upstream of culvert?	1,1310	Unknown				
	on for storm water runoff or road	d drainage?	Yes	\exists			
		•					
is the waterway a co	ncrete-lined flood control chan						
		Potent	ial Fish Bearing Stream	?			
Does the site contai	n an active channel width >2 fe	et?	No				
Is the stream gradie	nt < 20%?		yes				
		S	Salmonid ESU/DPS				
	Coho Salmon) or DPS (Steelh	ead)					
Central Valley Sprin							
Central Valley Fall_I	ate Fall-Run Chinook						
Central Valley Steel	nead						
		Histori	ic Anadromous Reach?				
Has the stream read	h upstream of the crossing sup	ported an anad	romous fish population?	No]		
Source							
			Crossing Type				
Crossing Type			ID				
General Description	PVC pipe culvert with a conc	rete headwall. (n end of culvert.			
			Photos				
3.1 Upstream Looki	ng Upstream - Photo I	n/a					
3.2 Upstream Looki	ng Downstream - Photo I	n/a					
3.3 Downstream Lo	oking Upstream - Photo ID	3.3_BUT_99)_21.37_DU				
3.4 Downstream Lo	oking Downstream - Photo ID	3.4_BUT_99	9_21.37_DD				
		Detaile	ed Survey Required	1?			
Detailed Survey Red	quired?: No						
B (B) (5-1)							

County: Butte Route: 99 Postmile: 21.37 Survey Date: 02/04/2016

Upstream Looking Upstream	Upstream Looking Downstream
N/A	N/A
Downstream Looking Upstream	Downstream Looking Downstream

RECONNAISSANCE SURVEY INFORMATION	
County: BUT Route: 99	PM: 22.95
Survey Information	
Date 2/4/2016 Time 9:34 Agency Performing Survey HDR	
Data Recorder NO (24 hr. clock) Survey Team NO, ST	
Site Information	
GPS Data	
Longitude -121.705299 Latitude 39.632485	
GPS HDOP 1 Loc. of GPS Point above outlet PM	
Hydrologic Information	
Stream Name Little Dry Creek Source:	
Basin East Side Quad Name (7.5') HAMLIN CANYON	
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin	
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin	
Natural Stream Channel?	
Is there a definable channel upstream of culvert?	
Is the primary function for storm water runoff or road drainage?: No	
Is the waterway a concrete-lined flood control channel?	
Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 feet?	
Is the stream gradient < 20%?	
Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhead)	
Central Valley Spring-Run Chinook	
Central Valley Fall_Late Fall-Run Chinook	
Central Valley Steelhead	
Historic Anadromous Reach?	
Has the stream reach upstream of the crossing supported an anadromous fish population? Yes	
Source Tributary to Butte Creek, CV Spring-run 5-Year Status Review (NMFS 2005)	
Crossing Type	
Crossing Type bridge w/o potential passage constraints ID 12-0196	
General Description:	
Photos	_
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_22.95_UU	
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_22.95_UD	
3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_22.95_DU	_
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_22.95_DD	
Detailed Survey Required?	
Detailed Survey Required?: No	

County: Butte Route: 99 Postmile: 22.95 Survey Date: 02/04/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream

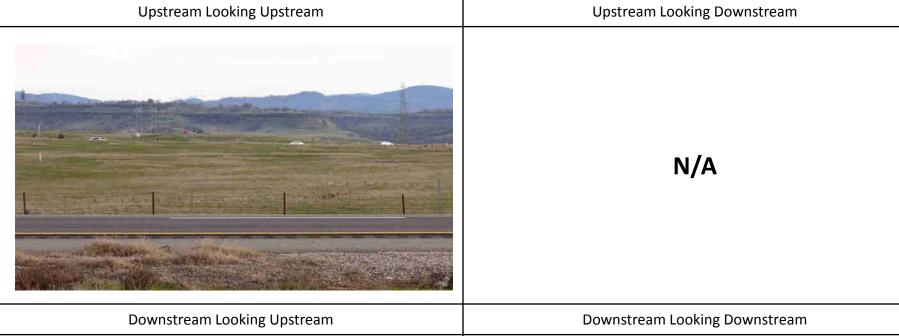


Downstream Looking Downstream



RECONNAI	SSANCE SURVEY INFORMATION	
County: BUT	Route: 99	PM: 23.40
	Survey Information	
Date 2/4/2016 Time 9:00	Agency Performing Survey HDR	
Data Recorder NO (24 hr. clos	sk) Survey Team NO, ST	
	Site Information	
	GPS Data	
Longitude -121.71027 Latitude	39.636757	
GPS HDOP 1 Loc. of G	PS Point above outlet PM	
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Side	Quad Name (7.5') HAMLIN CANYON	
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	
-	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	No No	
Is the primary function for storm water runoff or road dra		
Is the waterway a concrete-lined flood control channel?	No	
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 feet?	No	
Is the stream gradient < 20%?	yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhead)		
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing supported	ed an anadromous fish population?	
Source		
	Crossing Type	
Crossing Type Culvert	ID	
General Description: Concrete pipe culvert with precase	t end sections.	
	Photos	
3.1 Upstream Looking Upstream - Photo I 3.	1_BUT_99_23.40_UU	
3.2 Upstream Looking Downstream - Photo I	a	
3.3 Downstream Looking Upstream - Photo ID 3.	3_BUT_99_23.40_DU	
3.4 Downstream Looking Downstream - Photo ID 3.	4_BUT_99_23.40_DD	
	Detailed Survey Required?	
Detailed Survey Required?: No		
D + D + 00 45 0040		

County: Butte Route: 99 Postmile: 23.40 Survey Date: 02/04/2016







RECONN	IAISSANCE SURVEY INFORMATION	
County: BUT	Route: 99	PM: 23.60
	Survey Information	
Date 2/4/2016 Time 9:	52 Agency Performing Survey HDR	
Data Recorder ST, NO (24 hr	Survey Team ST, NO	
	Site Information	
	GPS Data	
Longitude -121.713288 Latitu	39.639354	
GPS HDOP 1 Loc.	of GPS Point above outlet PM	
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Side	Quad Name (7.5') HAMLIN CANYON	
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	Yes	
Is the primary function for storm water runoff or road		
	 	
Is the waterway a concrete-lined flood control chann		
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fee	et? Yes	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing supp	<u> </u>	
Source Tributary to Butte Creek, CV Spring	-run 5-Year Status Review (NMFS 2005)	
	Crossing Type	
Crossing Type Culvert	ID	
General Description: Double concrete box culvert.		
Od Hadron Lastin III de Silvin	Photos	7
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_23.60_UU	<u></u>
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_23.60_UD	_ ¬
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_23.60_DU	_ _
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_23.60_DD	J
	Detailed Survey Required?	
Detailed Survey Required?: Yes	_	

RECONNAISSANCE SURVEY INFORMATION Route: 99 County: BUT PM: 23.60 **Access Information** Land Ownership: Upstream unknown Owner(s) Downstream unknown Owner(s) Accessible from road? Upstream? Yes Limitations Fence Downstream? Yes Limitations Fence **Vegetation Removal Required?** No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID Comments Maintenance Assistance Required? No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No Downstream? (If "Yes", comment and take photograph) Photo ID Comments **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVÉRT Is culvert diameter > 60"?

Yes Yes

Report Date 03-15-2016

Can you see all the way through the end of the culvert?

Can you feel a breeze through the culvert?

County: Butte Route: 99 Postmile: 23.60 Survey Date: 02/04/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONN	AISSANCE SURVEY INFORMATION	
County: BUT	Route: 99	PM: 23.90
	Survey Information	
Date 2/4/2016 Time 8:	38 Agency Performing Survey HDR	
Data Recorder ST, NO (24 hr.	clock) Survey Team ST, NO	
	Site Information	
	GPS Data	
Longitude -121.715862 Latitu	de 39.641583	
GPS HDOP 2 Loc. 0	of GPS Point above outlet PM	
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Side	Quad Name (7.5') HAMLIN CANYON	
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	
	Natural Stream Channel?	•
Is there a definable channel upstream of culvert?	No No	
Is the primary function for storm water runoff or road		
Is the waterway a concrete-lined flood control chann		
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fee	t? No	
Is the stream gradient < 20%?	yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing supp	orted an anadromous fish population?	
Source		
	Crossing Type	
Crossing Type Culvert	ID	
General Description: Two concrete pipe culverts wi	th precast end sections.	
	Photos	
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_23.90_UU	
3.2 Upstream Looking Downstream - Photo I	n/a	
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_23.90_DU	
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_23.90_DD]
	Detailed Survey Required?	
Detailed Survey Required?: No		

County: Butte Route: 99 Postmile: 23.90 Survey Date: 02/04/2016

Upstream Looking Upstream

N/A

Downstream Looking Upstream

Downstream Looking Upstream

Downstream Looking Upstream

Downstream Looking Downstream





RECON	NAISSANCE SURVEY INFORMATION	
County: BUT	Route: 99	PM: 24.10
	Survey Information	
Date 2/4/2016 Time 8	Agency Performing Survey HDR	
Data Recorder ST, NO (24 h	r. clock) Survey Team ST, NO	
	Site Information	
	GPS Data	
Longitude -121.721661 Latit	ude 39.646752	
GPS HDOP 2 Loc.	of GPS Point above outlet PM	
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Side	Quad Name (7.5') HAMLIN CANYON	
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	No No	
Is the primary function for storm water runoff or roa		
		
Is the waterway a concrete-lined flood control chan		
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fe	eet? No	
Is the stream gradient < 20%?	yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelh	ead)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing sup		
Source Tributary to Butte Creek, CV Spring	g-run 5-Year Status Review (NMFS 2005)	
	Crossing Type	
Crossing Type Culvert	ID	
General Description: Three concrete pipe culverts		
Od Hadron Lock Holes Took	Photos	
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_24.10_UU	
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_24.10_UD	
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_24.10_DU	
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_24.10_DD	
	Detailed Survey Required?	
Detailed Survey Required?: No		

County: Butte Route: 99 Postmile: 24.10 Survey Date: 02/04/2016

Upstream Looking Upstream







Downstream Looking Upstream

Downstream Looking Downstream

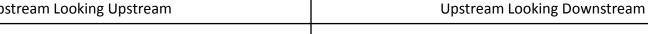




RECONNA	AISSANCE SURVEY INFORMATION	
County: BUT	Route: 99	PM: 24.58
	Survey Information	
Date 2/3/2016 Time 16:	19 Agency Performing Survey HDR	
Data Recorder NO (24 hr.	clock) Survey Team NO, ST	
	Site Information	
	GPS Data	
Longitude -121.725197 Latitud	e 39.649892	
GPS HDOP 1 Loc. of	GPS Point above outlet PM	
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Side	Quad Name (7.5') HAMLIN CANYON	
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	
	Natural Stream Channel?	
In there a definable channel unatroom of out is #2	No No	
Is there a definable channel upstream of culvert?		
Is the primary function for storm water runoff or road of		
Is the waterway a concrete-lined flood control channel	l? No	
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 feet	? No	
Is the stream gradient < 20%?	yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhea	nd)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing suppo	orted an anadromous fish population?	
Source		
	Crossing Type	
Crossing Type Culvert	ID	
General Description: Three concrete pipe culverts w	ith concrete precast end sections.	
	Photos	
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_24.58_UU	
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_24.58_UD	
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_24.58_DU	
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_24.58_DD	
	Detailed Survey Required?	
Detailed Survey Required?: No]	
Report Date 03-15-2016	1	

County: Butte Route: 99 Postmile: 24.58 Survey Date: 02/03/2016

Upstream Looking Upstream







Downstream Looking Upstream

Downstream Looking Downstream





Route: 99 PM: 24.70 Survey Information Date 2/3/2016 Time 16:13 Agency Performing Survey HDR Data Recorder NO (24 hr. clock) Survey Team NO, ST Site Information GPS Data Longitude -121.726276 Latitude 39.650781 GPS HDOP 1 Loc. of GPS Point above outlet PM PM Hydrologic Information Stream Name Unknown Source: Basin East Side Quad Name (7.5') HAMLIN CANYON USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin
Date 2/3/2016 Time 16:13 Agency Performing Survey HDR Data Recorder NO (24 hr. clock) Survey Team NO, ST Site Information GPS Data Longitude -121.726276 Latitude 39.650781 GPS HDOP 1 Loc. of GPS Point above outlet PM Hydrologic Information Stream Name unknown Source: Basin East Side Quad Name (7.5') HAMLIN CANYON USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin
Data Recorder NO (24 hr. clock) Survey Team NO, ST Site Information GPS Data Longitude -121.726276 Latitude 39.650781 GPS HDOP 1 Loc. of GPS Point above outlet PM Hydrologic Information Stream Name unknown Source: Basin East Side Quad Name (7.5') HAMLIN CANYON USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin
Site Information GPS Data Longitude
GPS Data Longitude -121.726276 Latitude 39.650781 GPS HDOP 1 Loc. of GPS Point above outlet PM Hydrologic Information Stream Name unknown Source: Basin East Side Quad Name (7.5') HAMLIN CANYON USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin
Longitude -121.726276 Latitude 39.650781 GPS HDOP 1 Loc. of GPS Point above outlet PM Hydrologic Information Stream Name unknown Source: Basin East Side Quad Name (7.5') HAMLIN CANYON USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin
GPS HDOP 1 Loc. of GPS Point above outlet PM Hydrologic Information Stream Name unknown Source: Basin East Side Quad Name (7.5') HAMLIN CANYON USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin
Hydrologic Information Stream Name Unknown Source: Basin East Side Quad Name (7.5') HAMLIN CANYON USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin
Stream Name unknown Source: Basin East Side Quad Name (7.5') HAMLIN CANYON USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin
Basin East Side Quad Name (7.5') HAMLIN CANYON USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin
Natural Stream Channel?
Is there a definable channel upstream of culvert?
Is the primary function for storm water runoff or road drainage?: Yes
Is the waterway a concrete-lined flood control channel?
Potential Fish Bearing Stream?
Does the site contain an active channel width >2 feet?
Is the stream gradient < 20%? yes
Salmonid ESU/DPS
ESU (Chinook and Coho Salmon) or DPS (Steelhead)
Central Valley Spring-Run Chinook
Central Valley Fall_Late Fall-Run Chinook
Central Valley Steelhead
Historic Anadromous Reach?
Has the stream reach upstream of the crossing supported an anadromous fish population?
Source
Crossing Type
Crossing Type Culvert ID
General Description: Concrete pipe with a concrete headwall.
Photos
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_24.70_UU
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_24.70_UD
3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_24.70_DU
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_24.70_DD
Detailed Survey Required?
Detailed Survey Required?: No

County: Butte Route: 99 Postmile: 24.70 Survey Date: 02/03/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 24.85	
	Survey Information		
Date 2/3/2016 Time 16	:13 Agency Performing Survey HDR		
Data Recorder NO (24 hr	clock) Survey Team NO, ST		
	Site Information		
	GPS Data		
Longitude -121.727497 Latitu	de 39.651926		
GPS HDOP 1 Loc. 0	of GPS Point above outlet PM		
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5') HAMLIN CANYON		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
le there a definable channel unattack of out 1772	Natural Stream Channel?		
Is there a definable channel upstream of culvert?			
Is the primary function for storm water runoff or road			
Is the waterway a concrete-lined flood control chann	el? No		
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fee	et? No		
Is the stream gradient < 20%?	yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supp	ported an anadromous fish population?		
Source			
	Crossing Type		
Crossing Type Culvert	ID		
General Description: Three concrete pipe culverts i	n concrete form.		
Photos			
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_24.85_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_24.85_UD		
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_24.85_DU		
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_24.85_DD		
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 24.85 Survey Date: 02/03/2016

Upstream Looking Upstream







Downstream Looking Upstream

Downstream Looking Downstream





RECONNAISSANCE SURVEY INFORMATION		
County: BUT Route: 99 PM:	24.90	
Survey Information		
Date 2/3/2016 Time 16:10 Agency Performing Survey HDR		
Data Recorder NO (24 hr. clock) Survey Team NO, ST		
Site Information		
GPS Data		
Longitude -121.728326 Latitude 39.652601		
GPS HDOP 1 Loc. of GPS Point above outlet PM		
Hydrologic Information		
Stream Name unknown Source:		
Basin East Side Quad Name (7.5') HAMLIN CANYON		
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin		
Natural Stream Channel?		
Is there a definable channel upstream of culvert?		
Is the primary function for storm water runoff or road drainage?: Yes		
Is the waterway a concrete-lined flood control channel?		
Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 feet?		
Is the stream gradient < 20%?		
Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhead)		
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supported an anadromous fish population?		
Source		
Crossing Type		
Crossing Type Culvert ID	1	
General Description: Concrete pipe culvert with precast end sections.		
Photos		
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_24.90_UU		
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_24.90_UD		
3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_24.90_DU		
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_24.90_DD		
Detailed Survey Required?		
Detailed Survey Required?: No		

County: Butte Route: 99 Postmile: 24.90 Survey Date: 02/03/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION		
County: BUT	Route: 99	PM: 25.05
	Survey Information	
Date 2/3/2016 Time 16:00	Agency Performing Survey HDR	
Data Recorder NO (24 hr. cloc	k) Survey Team NO, ST	
	Site Information	
	GPS Data	
Longitude -121.731187 Latitude	39.655128	
GPS HDOP 1 Loc. of GR	PS Point above outlet PM	
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Side	Quad Name (7.5') HAMLIN CANYON	
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	No	
Is the primary function for storm water runoff or road drai	inage?: Yes	
Is the waterway a concrete-lined flood control channel?	No	
to the waterway a control mine more control enditier:		
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 feet?	No	
Is the stream gradient < 20%?	yes	
FOUNDAMENT OF THE PROPERTY OF	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhead)	1	
Central Valley Spring-Run Chinook]	
Central Valley Fall_Late Fall-Run Chinook]	
Central Valley Steelhead	Historic Anadromous Reach?	
Has the atroom reach unctroom of the		
Has the stream reach upstream of the crossing supporte Source	d an anadromous fish population?	
Source	Crossing Type	
Crossing Type Culvert	ID	
General Description: Concrete pipe culvert with concrete	te precast end section.	
Photos		
3.1 Upstream Looking Upstream - Photo I 3.	1_BUT_99_25.05_UU	
3.2 Upstream Looking Downstream - Photo I 3.2	2_BUT_99_25.05_UD	
3.3 Downstream Looking Upstream - Photo ID 3.3	3_BUT_99_25.05_UD	
3.4 Downstream Looking Downstream - Photo ID 3.	4_BUT_99_25.05_DD	
Detailed Survey Required?		
Detailed Survey Required?: No		

County: Butte Route: 99 Postmile: 25.05 Survey Date: 02/03/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION		
County: BUT Route: 99	PM: 25.06	
Survey Information		
Date 2/3/2016 Time 16:00 Agency Performing Survey H	DR	
Data Recorder NO (24 hr. clock) Survey Team NO, ST		
Site Information		
GPS Data		
Longitude -121.731393 Latitude 39.655286		
GPS HDOP 1 Loc. of GPS Point above outlet	PM	
Hydrologic Information		
Stream Name unknown Source:		
Basin East Side Quad Name (7.5') HAMLIN CANYON		
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin		
Natural Stream Channel?		
Is there a definable channel upstream of culvert?		
Is the primary function for storm water runoff or road drainage?: Yes		
Is the waterway a concrete-lined flood control channel?		
Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 feet?		
Is the stream gradient < 20%?		
Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhead)		
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead Historic Anadromous Boach?		
Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supported an anadromous fish population? No		
Source Crossing Type		
Crossing Type Culvert ID		
General Description: Two concrete pipe culverts with precast end sections.		
Photos		
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_25.06_UU		
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_25.06_UD		
3.3 Downstream Looking Upstream - Photo ID 3.3 BUT_99_25.06_DU		
3.4 Downstream Looking Downstream - Photo ID 3.4 BUT_99_25.06_DD		
Detailed Survey Required?		
Detailed Survey Required?: No		

County: Butte Route: 99 Postmile: 25.06 Survey Date: 02/03/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION		
County: BUT Route: 99 PM	25.20	
Survey Information		
Date 2/3/2016 Time 15:54 Agency Performing Survey HDR		
Data Recorder NO (24 hr. clock) Survey Team NO, ST		
Site Information		
GPS Data		
Longitude -121.733124 Latitude 39.656794		
GPS HDOP 1 Loc. of GPS Point above outlet PM		
Hydrologic Information		
Stream Name unknown Source:		
Basin East Side Quad Name (7.5') HAMLIN CANYON		
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin		
Natural Stream Channel?		
Is there a definable channel upstream of culvert?		
Is the primary function for storm water runoff or road drainage?: Yes		
Is the waterway a concrete-lined flood control channel?		
Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 feet?		
Is the stream gradient < 20%? yes		
Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhead)		
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supported an anadromous fish population?		
Source		
Crossing Type		
Crossing Type Culvert ID		
General Description: Concrete pipe culvert with precast end section. Could not located upstream culvert.		
Photos		
3.1 Upstream Looking Upstream - Photo I n/a		
3.2 Upstream Looking Downstream - Photo I		
3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_25.20_UD		
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_25.20_DD		
Detailed Survey Required?		
Detailed Survey Required?: No		

County: Butte Route: 99 Postmile: 25.20 Survey Date: 02/03/2016

Upstream Looking Upstream	Upstream Looking Downstream
N/A	
Downstream Looking Upstream	Downstream Looking Downstream
N/A	

RECONNAISSANCE SURVEY INFORMATION		
County: BUT Route: 99 PM	25.35	
Survey Information		
Date 2/3/2016 Time 15:19 Agency Performing Survey HDR		
Data Recorder NO (24 hr. clock) Survey Team NO, ST		
Site Information		
GPS Data		
Longitude -121.735052 Latitude 39.658608		
GPS HDOP 1 Loc. of GPS Point above outlet PM		
Hydrologic Information		
Stream Name Hamlin Slough Source: 1:24k USGS quad		
Basin East Side Quad Name (7.5') HAMLIN CANYON		
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin		
Natural Stream Channel?		
Is there a definable channel upstream of culvert?		
Is the primary function for storm water runoff or road drainage?:		
Is the waterway a concrete-lined flood control channel?		
Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 feet?		
Is the stream gradient < 20%?		
Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhead)		
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supported an anadromous fish population? Unknown		
Source Tributary to Butte Creek, CV Spring-run 5-Year Status Review (NMFS 2005)		
Crossing Type		
Crossing Type bridge w/o potential passage constraints ID		
General Description:		
Photos		
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_25.35_UU		
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_25.35_UD		
3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_25.35_UD		
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_25.35_DD		
Detailed Survey Required?		
Detailed Survey Required?: No		

County: Butte Route: 99 Postmile: 25.35 Survey Date: 02/03/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 25.98	
	Survey Information		
Date 2/3/2016 Tin	me 13:20 Agency Performing Survey	HDR	
Data Recorder NO	(24 hr. clock) Survey Team NO, ST		
	Site Information		
	GPS Data		
Longitude -121.743	108 Latitude 39.664835		
GPS HDOP	1 Loc. of GPS Point above outlet	PM	
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5') HAMLIN CANYOI	N	
USGS Hydrologic Unit LOWER_BL			
CalWater Unit HU COLUSA BA			
	Natural Stream Channel?		
Is there a definable channel upstream of			
•			
Is the primary function for storm water r			
Is the waterway a concrete-lined flood of	<u> </u>		
	Potential Fish Bearing Stream?		
Does the site contain an active channel	width >2 feet?		
Is the stream gradient < 20%?	yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or D	PS (Steelhead)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chino	ok		
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the c	rossing supported an anadromous fish population?		
Source			
	Crossing Type		
Crossing Type Culvert	ID		
General Description: Double concrete	box culvert.		
Photos			
3.1 Upstream Looking Upstream - Pho	o I 3.1_BUT_99_25.98_UU		
3.2 Upstream Looking Downstream - P	hoto I 3.2_BUT_99_25.98_UD		
3.3 Downstream Looking Upstream - P	hoto ID 3.3_BUT_99_25.98_DU		
3.4 Downstream Looking Downstream	- Photo ID 3.4_BUT_99_25.98_DD		
Detailed Survey Required?			
Detailed Survey Required?:	No		

County: Butte Route: 99 Postmile: 25.98 Survey Date: 02/03/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION				
County: BUT Route: 99 PM:	26.14			
Survey Information				
Date 2/3/2016 Time 13:27 Agency Performing Survey HDR				
Data Recorder ST, NO (24 hr. clock) Survey Team ST, NO				
Site Information				
GPS Data				
Longitude -121.745237 Latitude 39.666539				
GPS HDOP 1 Loc. of GPS Point above outlet PM				
Hydrologic Information				
Stream Name Nance Canyon Source: sign at site				
Basin East Side Quad Name (7.5') HAMLIN CANYON				
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin				
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin				
Natural Stream Channel?				
Is there a definable channel upstream of culvert? Yes Yes				
Is the primary function for storm water runoff or road drainage?:				
Is the waterway a concrete-lined flood control channel?				
Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 feet?				
Is the stream gradient < 20%?				
Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhead)				
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead				
Historic Anadromous Reach?				
Has the stream reach upstream of the crossing supported an anadromous fish population? Unknown				
Source Tributary to Butte Creek, CV Spring-run 5-Year Status Review (NMFS 2005)				
Crossing Type				
Crossing Type bridge w/o potential passage constraints ID 12-0129				
General Description:				
Photos				
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_26.14_UU				
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_26.14_UD				
3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_26.14_DU				
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_26.14_DD				
Detailed Survey Required?				
Detailed Survey Required?: No				

County: Butte Route: 99 Postmile: 26.14 Survey Date: 02/03/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT			
	Survey Information		
Date 2/3/2016 Time 11	17 Agency Performing Survey	HDR	
Data Recorder NO (24 hr.	clock) Survey Team NO, ST		
	Site Information		
	GPS Data		
Longitude -121.760557 Latitu	de 39.678908		
GPS HDOP 1 Loc. 0	of GPS Point above inlet	PM	
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5')		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel upstream of culvert?	Yes		
Is the primary function for storm water runoff or road			
Is the waterway a concrete-lined flood control chann			
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fee	t? Yes		
Is the stream gradient < 20%?	Yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)		
Central Valley Spring-Run Chinook	<u> </u>		
Central Valley Fall_Late Fall-Run Chinook	<u>_</u>		
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supp	orted an anadromous fish population? Unknown		
Source			
	Crossing Type		
Crossing Type Culvert	ID		
General Description: Double concrete box culvert w	ith wingwalls.		
	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_27.33_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_27.33_UD		
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_27.33_DU		
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_27.33_DD		
	Detailed Survey Required?		
Detailed Survey Required?: Yes	1		
Report Date 03-15-2016	_		

RECONNAISSANCE SURVEY INFORMATION Route: 99 County: BUT PM: 27.33 **Access Information** Land Ownership: Owner(s) fenced agriculture Upstream private Downstream private Owner(s) fenced agriciulture Accessible from road? Upstream? Yes Fence Limitations Downstream? Yes Limitations Fence **Vegetation Removal Required?** No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID Comments Maintenance Assistance Required? No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No Downstream? (If "Yes", comment and take photograph) Photo ID Comments **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVÉRT Is culvert diameter > 60"? Can you see all the way through the end of the culvert? Yes

Yes

Report Date 03-15-2016

Can you feel a breeze through the culvert?

County: Butte Route: 99 Postmile: 27.33 Survey Date: 02/03/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT			
	Survey Information		
Date 2/3/2016 Time 11	19 Agency Performing Survey HI	DR	
Data Recorder NO (24 hr.	clock) Survey Team NO, ST		
	Site Information		
	GPS Data		
Longitude -121.760985 Latitu	de 39.679274		
GPS HDOP 1 Loc. o	of GPS Point above inlet	PM	
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5')		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel upstream of culvert?	Yes		
Is the primary function for storm water runoff or road			
Is the waterway a concrete-lined flood control chann			
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fee	t? Yes		
Is the stream gradient < 20%?	Yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)		
Central Valley Spring-Run Chinook	<u></u>		
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supp	orted an anadromous fish population? Unknown		
Source			
	Crossing Type		
Crossing Type Culvert	ID		
General Description: Double concrete box culvert w	rith wingwalls.		
	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_27.38_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_27.38_UD		
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_27.38_DU		
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_27.38_DD		
	Detailed Survey Required?		
Detailed Survey Required?: Yes			
Report Date 03-15-2016			

RECONNAISSANCE SURVEY INFORMATION Route: 99 County: BUT PM: 27.38 **Access Information** Land Ownership: Upstream private Owner(s) Downstream private Owner(s) Accessible from road? Upstream? Yes Limitations Fence Downstream? Yes Limitations Fence **Vegetation Removal Required?** No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID Comments Maintenance Assistance Required? No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No Downstream? (If "Yes", comment and take photograph) Photo ID Comments **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVÉRT Is culvert diameter > 60"?

Yes Yes

Report Date 03-15-2016

Can you see all the way through the end of the culvert?

Can you feel a breeze through the culvert?

County: Butte Route: 99 Postmile: 27.38 Survey Date: 02/03/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT			
	Survey Information		
Date 2/3/2016 Time 11	:20 Agency Performing Survey HDR		
Data Recorder NO (24 hr	Colock) Survey Team NO, ST		
	Site Information		
	GPS Data		
Longitude -121.761605 Latitu	ude 39.679855		
GPS HDOP 1 Loc.	of GPS Point above inlet PM		
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5') CHICO		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel upstream of culvert?	No		
Is the primary function for storm water runoff or road	d drainage?· No		
Is the waterway a concrete-lined flood control chann			
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fee	et? No		
Is the stream gradient < 20%?	Yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelho	ead)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing sup	ported an anadromous fish population? Unknown		
Source	O		
	Crossing Type		
Crossing Type Culvert	ID ID	1	
General Description: Concrete pipe culvert with a concrete pipe culver			
	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_27.43_UU	_	
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_27.43_UD	<u> </u>	
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_27.43_DU	<u>_</u>	
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_27.43_DD		
	Detailed Survey Required?		
Detailed Survey Required?: No			
Report Date 03-15-2016			

County: Butte Route: 99 Postmile: 27.43 Survey Date: 02/03/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT Route: 99	PM: 27.60		
Survey Information			
Date 2/3/2016 Time 11:32 Agency Performing Survey HDR]		
Data Recorder NO (24 hr. clock) Survey Team NO, ST			
Site Information			
GPS Data			
Longitude -121.764026 Latitude 39.681427			
GPS HDOP 1 Loc. of GPS Point above outlet PM			
Hydrologic Information			
Stream Name unknown Source:			
Basin East Side Quad Name (7.5') CHICO	\neg		
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin			
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin	\exists		
Natural Stream Channel?			
Is there a definable channel upstream of culvert?			
Is the primary function for storm water runoff or road drainage?:			
Is the waterway a concrete-lined flood control channel?			
Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 feet?			
Is the stream gradient < 20%?			
Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhead)			
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
Historic Anadromous Reach?			
Has the stream reach upstream of the crossing supported an anadromous fish population? Unknown			
Source			
Crossing Type			
Crossing Type Culvert ID			
General Description: Two corrugated steel pipe culverts with precast end sections.			
Photos			
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_27.60_UU			
3.2 Upstream Looking Downstream - Photo I			
3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_27.60_UD			
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_27.60_DD			
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 27.60 Survey Date: 02/03/2016

Upstream Looking Upstream







Downstream Looking Upstream

Downstream Looking Downstream





RECONNAISSANCE SURVEY INFORMATION			
County: BUT			
	Survey Information		
Date 2/3/2016 Time 11	:00 Agency Performing Survey F	IDR	
Data Recorder NO (24 hr	. clock) Survey Team NO, ST		
	Site Information		
	GPS Data		
Longitude -121.767367 Latitu	de 39.684457		
GPS HDOP 1 Loc.	of GPS Point above outlet	PM	
	Hydrologic Information		
Stream Name Scrub Creek	Source: sign at site		
Basin East Side	Quad Name (7.5')		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel upstream of culvert?	Yes		
Is the primary function for storm water runoff or road			
Is the waterway a concrete-lined flood control chann	<u> </u>		
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fee	et? Yes		
Is the stream gradient < 20%?	yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supp	ported an anadromous fish population? Unknown		
Source			
	Crossing Type		
Crossing Type bridge w/o potential passage			
General Description: Double box concrete bridge w	rith concrete wingwalls.		
	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_27.85_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_27.85_UD		
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_27.85_DU		
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_27.85_DD		
	Detailed Survey Required?		
Detailed Survey Required?: No			
Report Date 03-15-2016			

County: Butte Route: 99 Postmile: 27.85 Survey Date: 02/03/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	PM: 28.00		
	Survey Information		
Date 2/3/2016 Time 10	Agency Performing Survey	HDR	
Data Recorder NO (24 hr.	clock) Survey Team NO, ST		
	Site Information		
	GPS Data		
Longitude -121.769613 Latitu	de 39.686413		
GPS HDOP 0.1 Loc. o	of GPS Point above inlet	PM	
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5') CHICO		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
·	Natural Stream Channel?	·	
Is there a definable channel upstream of culvert?	No No		
·			
Is the primary function for storm water runoff or road			
Is the waterway a concrete-lined flood control chann	<u> </u>		
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fee	et? No		
Is the stream gradient < 20%?	yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supp	oorted an anadromous fish population?		
Source			
	Crossing Type		
Crossing Type Culvert	ID		
General Description: Unable to identify culvert type			
2411	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_28.00_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_28.00_UD		
3.3 Downstream Looking Upstream - Photo ID	n/a		
3.4 Downstream Looking Downstream - Photo ID	n/a		
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte

Route: 99

Postmile: 28.00

Survey Date: 02/03/2016

Upstream Looking Upstream Upstream Looking Downstream Downstream Looking Upstream Downstream Looking Downstream N/A N/A

196

RECONNAISSANCE SURVEY INFORMATION			
County: BUT			
	Survey Information		
Date 2/3/2016 T	me 10:35 Agency Performing Survey	HDR	
Data Recorder ST, NO	(24 hr. clock) Survey Team ST, NO		
	Site Information		
	GPS Data		
Longitude -121.77	0259 Latitude 39.686989		
GPS HDOP	0.1 Loc. of GPS Point above outlet	PM	
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5')		
USGS Hydrologic Unit LOWER_B	JTTE CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA B	ASIN CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel upstream			
Is the primary function for storm water			
Is the waterway a concrete-lined flood			
	Potential Fish Bearing Stream?		
Does the site contain an active channel	l width >2 feet?		
Is the stream gradient < 20%?	yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or	DPS (Steelhead)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chin	ook		
Central Valley Steelhead	Historia Annalassassa Basaka		
	Historic Anadromous Reach?		
	crossing supported an anadromous fish population?)	
Source	Crossing Type		
Connection True Contract			
Consisting Type Culvert Consist Description: Corrugated stee	ID		
General Description: Corrugated steel pipe culvert with precast end sections. Photos			
3.1 Unetroom Looking Unetroom Pho			
3.1 Upstream Looking Upstream - Pho3.2 Upstream Looking Downstream - F			
3.2 Opstream Looking Downstream - F 3.3 Downstream Looking Upstream - F			
3.4 Downstream Looking Downstream 3.4 Downstream Looking Downstream			
5.4 Downstican Looking Downstiean	<u> </u>		
	Detailed Survey Required?		
Detailed Survey Required?:	No		

County: Butte

Route: 99

Postmile: 28.05

Survey Date: 02/03/2016



Upstream Looking Downstream





Downstream Looking Upstream

Downstream Looking Downstream

N/A

N/A

RECONNAISSANCE SURVEY INFORMATION								
County: B				PM:	28.50			
			Sur	rvey Information				
Date 2/	/3/2016	Time	10:15	Agency Performing	ng Survey	HDR		
Data Recorder	NO		(24 hr. clock)	Survey Team	NO, ST			
			Si	ite Information				
				GPS Data				
Longitude		-121.775539	Latitude	39.691661				
GPS HDOP	[0.5	Loc. of GPS Point	above outlet		PM		
			Hyd	drologic Information				
Stream Name	unl	known			Source:			
Basin		East Side		Quad Name (7.5')	CHICO			
USGS Hydrologic	c Unit	LOWER_BUTTE		CalWater Unit HA	Butte Basin			
CalWater Unit HU	J	COLUSA BASIN		CalWater Unit HSA	Butte Basin			
			Natu	ural Stream Channel?				
Is there a definab	ole chann	el upstream of culv	ert?	No				
		storm water runoff		Yes				
		e-lined flood control	· ·	No	<u> </u>			
is the waterway a	a concrete	- III IGU IIOOU COITII OI		<u> </u>				
			Potenti	ial Fish Bearing Strean	m? 			
Does the site con	ntain an a	ctive channel width	>2 feet?	No	⊒			
Is the stream gra	idient < 20	0%?		yes				
Salmonid ESU/DPS								
		Salmon) or DPS (S	Steelhead)					
Central Valley Sp								
Central Valley Fa		all-Run Chinook						
Central Valley Ste	eelhead							
			Histori	c Anadromous Reach?	?			
Has the stream re	each upst	tream of the crossir	ng supported an anad	romous fish population?	No			
Source								
				Crossing Type				
Crossing T				ID				
General Description: Concrete pipe culvert with precast end sections.								
				Photos				
3.1 Upstream Lo			n/a					
	_	wnstream - Photo I						
	_	Upstream - Photo I						
3.4 Downstream	Looking	Downstream - Pho	to ID 3.4_BUT_99	9_28.50_DD				
Detailed Survey Required?								
Detailed Survey I	Required	?: No						

County: Butte Route: 99 Postmile: 28.50 Survey Date: 02/03/2016

Upstream Looking Upstream	Upstream Looking Downstream
N/A	N/A
Downstream Looking Upstream	Downstream Looking Downstream

RECONNAISSANCE SURVEY INFORMATION			
County: BUT Route: 99 PM			
	Survey Information		
Date 2/3/2016 Time 10	:10 Agency Performing Survey HDR		
Data Recorder NO (24 hr	. clock) Survey Team NO, ST		
	Site Information		
	GPS Data		
Longitude -121.776936 Latitu	ide 39.692871		
GPS HDOP 0.5 Loc.	of GPS Point above outlet PM		
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Side	Quad Name (7.5')		
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin		
	Natural Stream Channel?		
Is there a definable channel upstream of culvert?	No		
Is the primary function for storm water runoff or road	drainage?: Yes		
Is the waterway a concrete-lined flood control chann	<u> </u>		
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fee	et? No		
Is the stream gradient < 20%?			
Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)		
Central Valley Spring-Run Chinook	<u> </u>		
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supp	ported an anadromous fish population?		
Source			
	Crossing Type		
Crossing Type Culvert	ID		
General Description: Concrete pipe culvert with precast end sections.			
	Photos		
3.1 Upstream Looking Upstream - Photo I	n/a		
3.2 Upstream Looking Downstream - Photo I	n/a]	
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_28.60_DU		
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_28.60_DD]	
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 28.60 Survey Date: 02/03/2016

Upstream Looking Upstream	Upstream Looking Downstream
N/A	N/A
Downstream Looking Upstream	Downstream Looking Downstream

RECONNAISSANCE SURVEY INFORMATION		
County: BUT Route: 99 PM:	28.65	
Survey Information		
Date 2/3/2016 Time 10:00 Agency Performing Survey HDR		
Data Recorder NO (24 hr. clock) Survey Team NO, ST		
Site Information		
GPS Data		
Longitude -121.777741 Latitude 39.693595		
GPS HDOP 0.5 Loc. of GPS Point above outlet PM		
Hydrologic Information		
Stream Name unknown Source:		
Basin East Side Quad Name (7.5') CHICO		
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin		
Natural Stream Channel?		
Is there a definable channel upstream of culvert?		
Is the primary function for storm water runoff or road drainage?: Yes		
Is the waterway a concrete-lined flood control channel? Unknown		
Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 feet?		
Is the stream gradient < 20%? yes		
Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhead)		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
Central Valley Spring-Run Chinook		
Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supported an anadromous fish population?		
Source		
Crossing Type		
Crossing Type Culvert ID		
General Description: Concrete pipe culvert with precast end sections.		
Photos		
3.1 Upstream Looking Upstream - Photo I n/a		
3.2 Upstream Looking Downstream - Photo I n/a		
3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_28.65_DU		
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_28.65_DD		
Detailed Survey Required?		
Detailed Survey Required?: No		

County: Butte Route: 99 Postmile: 28.65 Survey Date: 02/03/2016

Upstream Looking Upstream	Upstream Looking Downstream
N/A	N/A
Downstream Looking Upstream	Downstream Looking Downstream

RECONNAISSANCE SURVEY INFORMATION		
County: BUT	Route: 99	PM: 28.72
	Survey Information	
Date 2/3/2016 Time 8:30	Agency Performing Survey HDR	
Data Recorder ST, NO (24 hr. clc	Survey Team ST, NO	
	Site Information	
	GPS Data	
Longitude -121.777732 Latitude	39.694235	
GPS HDOP 2 Loc. of C	SPS Point above inlet PM	
	Hydrologic Information	
Stream Name Butte Creek	Source: sign at site	
Basin East Side	Quad Name (7.5') CHICO	
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	
<u>-</u>	Natural Stream Channel?	
le there e definable channel unetreem of author?	Yes	
Is there a definable channel upstream of culvert?		
Is the primary function for storm water runoff or road dra		
Is the waterway a concrete-lined flood control channel?	No	
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 feet?	Yes	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhead)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing support	ted an anadromous fish population?	
Source CV Spring-run 5-Year Status Review (N	NMFS 2005)	
	Crossing Type	
Crossing Type bridge w/o potential passage cor	nstraints ID 12-0126	
General Description:		
Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_28.72_UU	_
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_28.72_UD]
3.3 Downstream Looking Upstream - Photo ID	v/a]
3.4 Downstream Looking Downstream - Photo ID	n/a	
	Detailed Survey Required?	
Detailed Survey Required?: No		
Report Date 03-15-2016		

County: Butte

Route: 99

Postmile: 28.72

Survey Date: 02/03/2016

Upstream Looking Upstream

Upstream Looking Downstream





Downstream Looking Upstream

Downstream Looking Downstream

N/A

N/A

RECONNAISSANCE SURVEY INFORMATION		
County: BUT Route: 99	PM: 28.90	
Survey Information		
Date 2/3/2016 Time 9:30 Agency Performing Survey HDR		
Data Recorder NO (24 hr. clock) Survey Team NO. ST		
Site Information		
GPS Data		
Longitude -121.779363 Latitude 39.695835		
GPS HDOP 1 Loc. of GPS Point above outlet PM		
Hydrologic Information		
Stream Name unknown Source:		
Basin East Side Quad Name (7.5') CHICO		
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin		
Natural Stream Channel?		
Is there a definable channel upstream of culvert?		
Is the primary function for storm water runoff or road drainage?: Yes		
Is the waterway a concrete-lined flood control channel?		
Potential Fish Bearing Stream?		
Fotential Fish bearing Stream?		
Does the site contain an active channel width >2 feet?		
Is the stream gradient < 20%? yes		
Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhead) Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supported an anadromous fish population?		
Source Crossing Type		
Crossing Type Culvert ID		
General Description: Concrete pipe culvert with precast end sections.		
Photos		
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_28.90_UU		
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_28.90_UD	=	
3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_28.90_DU	\exists	
3.4 Downstream Looking Downstream - Photo ID 3.4 BUT_99_28.90_DD		
Detailed Survey Required?		
Detailed Survey Required?: No		

County: Butte Route: 99 Postmile: 28.90 Survey Date: 02/03/2016



RECONNAISSANCE SURVEY INFORMATION		
County: BUT		
	Survey Information	
Date 2/3/2016 Time 9	24 Agency Performing Survey HDR	
Data Recorder NO (24 hr	r. clock) Survey Team NO, ST	
	Site Information	
	GPS Data	
Longitude -121.78003 Latitu	ude 39.696434	
GPS HDOP 1 Loc.	of GPS Point above inlet PM	
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Side	Quad Name (7.5')	
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	No No	
Is the primary function for storm water runoff or road		
Is the waterway a concrete-lined flood control chann		
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fee	et? No	
Is the stream gradient < 20%?	yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing sup	ported an anadromous fish population?	
Source		
	Crossing Type	
Crossing Type Culvert	ID	
General Description: Concrete pipe culvert with precast end section.		
Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_28.95_UU	
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_28.95_UD	
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_28.95_DU	
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_28.95_DD	
Detailed Survey Required?		
Detailed Survey Required?: No		
	_	

County: Butte Route: 99 Postmile: 28.95 Survey Date: 02/03/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION		
		PM: 29.05
	Survey Information	
Date 2/3/2016 Time 9	:02 Agency Performing Survey HDR	
Data Recorder ST, NO (24 h	r. clock) Survey Team ST, NO	
	Site Information	
	GPS Data	
Longitude -121.781578 Latit	ude 39.697799	
GPS HDOP 1 Loc.	of GPS Point above inlet PM	
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Side	Quad Name (7.5')	
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	No	
Is the primary function for storm water runoff or road		
Is the waterway a concrete-lined flood control chann		
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fe	et? No	
Is the stream gradient < 20%?	yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelho	ead)	
Central Valley Spring-Run Chinook	<u></u>	
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing sup	ported an anadromous fish population?	
Source		
	Crossing Type	
Crossing Type Culvert	ID	
General Description: Concrete pipe culvert with precast end section.		
Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_29.05_UU]
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_29.05_UD]
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_29.05_DU]
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_29.05_DD	
Detailed Survey Required?		
Detailed Survey Required?: No		

County: Butte Route: 99 Postmile: 29.05 Survey Date: 02/03/2016



RECONNAISSANCE SURVEY INFORMATION		
	M: 30.03	
Survey Information		
Date 2/3/2016 Time 8:00 Agency Performing Survey HDR		
Data Recorder NO (24 hr. clock) Survey Team NO, ST		
Site Information		
GPS Data		
Longitude -121.793523 Latitude 39.708534		
GPS HDOP 0.1 Loc. of GPS Point above inlet PM		
Hydrologic Information		
Stream Name Edgar Slough Source: CT Bridge log		
Basin East Side Quad Name (7.5') CHICO		
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin		
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin		
Natural Stream Channel?		
Is there a definable channel upstream of culvert? Yes		
Is the primary function for storm water runoff or road drainage?:		
a to primary terror of the transfer of the tra		
Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 feet?		
Is the stream gradient < 20%?		
Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhead)		
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supported an anadromous fish population? Unknown		
Source		
Crossing Type		
Crossing Type bridge w/o potential passage constraints ID 12-0128		
General Description: A concrete pipe culvert upstream of bridge may be a potential passage constraint.		
Photos		
3.1 Upstream Looking Upstream - Photo I n/a		
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_30.03_UD		
3.3 Downstream Looking Upstream - Photo ID n/a		
3.4 Downstream Looking Downstream - Photo ID n/a		
Detailed Survey Required?		
Detailed Survey Required?: No		
Report Date 03-15-2016		

County: Butte Route: 99 Postmile: 30.03 Survey Date: 02/03/2016

Upstream Looking Upstream	Upstream Looking Downstream
N/A	
Downstream Looking Upstream	Downstream Looking Downstream
N/A	N/A

RECONNAISSANCE SURVEY INFORMATION		
County: BUT		
	Survey Information	
Date 2/2/2016 Time 15	:51 Agency Performing Survey HDR	
Data Recorder ST, NO (24 hr	. clock) Survey Team ST, NO	
	Site Information	
	GPS Data	
Longitude -121.796808 Latitu	ide 39.710661	
GPS HDOP 0.5 Loc.	of GPS Point above outlet PM	
	Hydrologic Information	
Stream Name Dry Channel	Source:	
Basin East Side	Quad Name (7.5') CHICO	
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin	
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	No	
Is the primary function for storm water runoff or road	drainage?: No	
Is the waterway a concrete-lined flood control chann		
.,	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fee		
Is the stream gradient < 20%?	Yes	
ESU (Chinook and Coho Salmon) or DPS (Steelhe	Salmonid ESU/DPS	
Central Valley Spring-Run Chinook	eau)	
Central Valley Spring-Run Chinook Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
Denitial valley Steelileau	Historic Anadromous Reach?	
Has the street reach unstreet of the greeting supplied		
Has the stream reach upstream of the crossing suppose Source Aerial imagery; irrigation canal with	ported an anadromous fish population? No no upstream connectivity to a natural stream	1
Premar imagery, imgation canal with	Crossing Type	
Crossing Type Culvert	ID	
General Description: Triple concrete box culvert in concrete form.		
Photos		
3.1 Upstream Looking Upstream - Photo I	n/a	
3.2 Upstream Looking Downstream - Photo I	n/a	
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_30.40_DU	
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_30.40_DD	
Detailed Survey Required?		
Detailed Survey Required?: No		
	→	

County: Butte Route: 99 Postmile: 30.40 Survey Date: 02/02/2016

Upstream Looking Upstream	Upstream Looking Downstream
N/A	N/A
Downstream Looking Upstream	Downstream Looking Downstream

RECONNAISSANCE SURVEY INFORMATION				
County: BUT	Route: 99	PM: 31.20		
	Survey Information			
Date 2/2/2016 Time 15	Agency Performing Survey	HDR		
Data Recorder ST, NO (24 hr.	clock) Survey Team ST, NO			
	Site Information			
	GPS Data			
Longitude -121.806241 Latitu	de 39.722509			
GPS HDOP 2 Loc. o	of GPS Point above inlet	PM		
	Hydrologic Information			
Stream Name unknown	Source:			
Basin East Side	Quad Name (7.5') CHICO			
USGS Hydrologic Unit LOWER_BUTTE	CalWater Unit HA Butte Basin			
CalWater Unit HU COLUSA BASIN	CalWater Unit HSA Butte Basin			
-	Natural Stream Channel?	<u> </u>		
Is there a definable channel upstream of culvert?	No No			
Is the primary function for storm water runoff or road	a.aage			
Is the waterway a concrete-lined flood control chann				
	Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 fee	t? No			
Is the stream gradient < 20%?	Yes			
	Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)			
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead				
	Historic Anadromous Reach?			
Has the stream reach upstream of the crossing supp	orted an anadromous fish population?			
Source				
	Crossing Type			
Crossing Type Culvert	ID			
General Description: Two double concrete pipe culverts in concrete form upstream of a double box concrete culvert in concrete form.				
	Photos			
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_31.20_UU			
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_31.20_UD			
3.3 Downstream Looking Upstream - Photo ID	n/a			
3.4 Downstream Looking Downstream - Photo ID	n/a			
	Detailed Survey Required?			
Detailed Survey Required?: No				

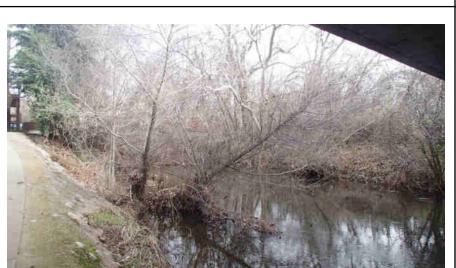
County: Butte Route: 99 Postmile: 31.20 Survey Date: 02/02/2016

Upstream Looking Upstream	Upstream Looking Downstream
Downstream Looking Upstream	Downstream Looking Downstream
N/A	N/A

County: BUT Route: 99 PM: 32.20				
Survey Information				
Date 2/2/2016 Time 14:30 Agency Performing Survey HDR				
Data Recorder NO (24 hr. clock) Survey Team NO, ST				
Site Information				
GPS Data				
Longitude -121.816609 Latitude 39.734519				
GPS HDOP 1 Loc. of GPS Point above inlet PM				
Hydrologic Information				
Stream Name LITTLE CHICO CR Source: CT Bridge log				
Basin East Side Quad Name (7.5') CHICO				
USGS Hydrologic Unit LOWER_BUTTE CalWater Unit HA Butte Basin				
CalWater Unit HU COLUSA BASIN CalWater Unit HSA Butte Basin				
Natural Stream Channel?				
Is there a definable channel upstream of culvert?				
Is the primary function for storm water runoff or road drainage?:				
Is the waterway a concrete-lined flood control channel?				
Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 feet?				
Is the stream gradient < 20%?				
Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhead)				
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead				
Historic Anadromous Reach?				
Has the stream reach upstream of the crossing supported an anadromous fish population? Yes				
Source Tributary to Butte Creek, CV Spring-run 5-Year Status Review (NMFS 2005)				
Crossing Type				
Crossing Type bridge w/o potential passage constraints ID 12-0148				
General Description:				
Photos				
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_32.20_UU				
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_32.20_UD				
3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_32.20_DU				
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_32.20_DD				
Detailed Survey Required?				
Detailed Survey Required?: No				

County: Butte Route: 99 Postmile: 32.20 Survey Date: 02/02/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION				
County: BUT	Route: 99	PM: 32.61		
	Survey Information			
Date 2/2/2016 Time 15:0	Agency Performing Survey	HDR		
Data Recorder NO (24 hr. c	clock) Survey Team NO, ST]		
	Site Information			
	GPS Data			
Longitude -121.823119 Latitud	e 39.738385			
GPS HDOP 1 Loc. of	GPS Point above outlet	PM		
	Hydrologic Information			
Stream Name BIG CHICO CR	Source: oth	er		
Basin East Red Bluff HA	Quad Name (7.5') CHICO			
USGS Hydrologic Unit SACRAMENTO-LOWER_	` '			
CalWater Unit HU TEHAMA	CalWater Unit HSA Red Bluff			
In the control of Sankhard and American of American	Natural Stream Channel?			
Is there a definable channel upstream of culvert?	Yes			
Is the primary function for storm water runoff or road of	drainage?: No			
Is the waterway a concrete-lined flood control channe	I? No			
	Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 feet	? Yes			
Is the stream gradient < 20%?	Yes			
	Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhea	d)			
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead				
	Historic Anadromous Reach?			
Has the stream reach upstream of the crossing support	orted an anadromous fish population?			
Source CV Spring-run 5-Year Status Review	(NMFS 2005)			
	Crossing Type			
Crossing Type bridge w/o potential passage co	onstraints ID 12-0151			
General Description:				
	Photos			
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_32.61_UU			
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_32.61_UD			
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_32.61_DU			
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_32.61_DD			
Detailed Survey Required?				
Detailed Survey Required?: No				

County: Butte Route: 99 Postmile: 32.61 Survey Date: 02/02/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION								
County: BUT		Ro	ute: 99				PM:	33.87
		Sur	vey Information					
Date 2/2/2016	Time	13:50	Agency Perforn	ning Survey		HDR		
Data Recorder NO	(:	(24 hr. clock)	Survey Team	NO, ST				
		Si	te Information					
			GPS Data					
Longitude	-121.840199 L	Latitude	39.75124	5				
GPS HDOP	1 L	Loc. of GPS Point	above outlet			PM		
		Hyd	Irologic Information					
Stream Name Lir	ndo Channel			Source:	CT Bridge Id	g		
Basin	East Red Bluff HA	1	Quad Name (7.5')	RICHAI	RDSON SPRIN	GS		
USGS Hydrologic Unit	SACRAMENTO-LOV	WER THOMES	CalWater Unit HA	Red Blu		-		
CalWater Unit HU	TEHAMA		CalWater Unit HSA	Red Blu				
		Natio	ıral Stream Channel	2				
la thora a definable about	and upatroom of authors		Yes	<u>r</u>				
Is there a definable chann	·							
Is the primary function for		_	No					
Is the waterway a concrete-lined flood control channel?								
Potential Fish Bearing Stream?								
Does the site contain an a	active channel width >	2 feet?	Yes					
Is the stream gradient < 2	0%?		Yes					
Salmonid ESU/DPS								
ESU (Chinook and Coho Salmon) or DPS (Steelhead)								
		Historie	c Anadromous Read	ch?				
Has the stream reach ups		• •			Yes			
Source Tributary	to Big Chico Creek, C	V Spring-run 5-Year	,	S 2005)				
			Crossing Type					
• • • •	lge w/o potential pass	-	ID 12-0154	•				
General Description: Note: city/county bike path could be a low flow barrier upstream of crossing.								
			Photos					
3.1 Upstream Looking Up	ostream - Photo I	3.1_BUT_99						
3.2 Upstream Looking Do		3.2_BUT_99						
3.3 Downstream Looking		3.3_BUT_99						
3.4 Downstream Looking	Downstream - Photo	ID 3.4_BUT_99	_33.87_DD					
Detailed Survey Required?								
Detailed Survey Required	12:		· · · · · · · · · · · · · · · · · · ·					

County: Butte Route: 99 Postmile: 33.87 Survey Date: 02/02/2016

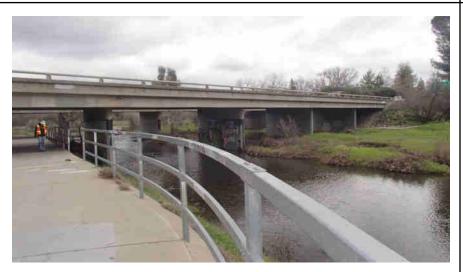
Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION				
County: BUT	Route: 99	PM: 36.10		
	Survey Information			
Date 2/2/2016 Time 13:				
Data Recorder ST, NO (24 hr.	clock) Survey Team ST, NO			
	Site Information			
	GPS Data			
Longitude -121.869582 Latitud	de 39.771748			
GPS HDOP 1 Loc. o	f GPS Point above inlet PM			
	Hydrologic Information			
Stream Name unknown	Source:			
Basin East Red Bluff HA	Quad Name (7.5') RICHARDSON SPRINGS			
USGS Hydrologic Unit SACRAMENTO-LOWER				
CalWater Unit HU TEHAMA	CalWater Unit HSA Red Bluff			
	Natural Stream Channel?			
Is there a definable channel upstream of culvert?	Yes			
Is the primary function for storm water runoff or road				
Is the waterway a concrete-lined flood control channe	el? Yes			
	Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 feet	? Yes			
Is the stream gradient < 20%?	Yes			
	Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhea	ad)			
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead				
	Historic Anadromous Reach?			
Has the stream reach upstream of the crossing support	orted an anadromous fish population?			
Source				
	Crossing Type			
Crossing Type Culvert	ID			
General Description: Concrete box culvert in a conc	rete form.			
	Photos			
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_36.10_UU			
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_36.10_UD			
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_36.10_DU			
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_36.10_DD				
Detailed Survey Required?				
Detailed Survey Required?: No				
Report Date 03-15-2016	_			

County: Butte Route: 99 Postmile: 36.10 Survey Date: 02/02/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION				
County: BUT	Route: 99	PM: 36.60		
	Survey Information			
Date 2/2/2016 Time 12:	Agency Performing Survey HDR			
Data Recorder ST, NO (24 hr.	clock) Survey Team ST, NO			
	Site Information			
	GPS Data			
Longitude -121.876986 Latitude	de 39.777114			
GPS HDOP 1 Loc. o	of GPS Point above outlet PM			
	Hydrologic Information			
Stream Name unknown	Source:			
Basin East Red Bluff HA	Quad Name (7.5') NORD			
USGS Hydrologic Unit SACRAMENTO-LOWER	_THOMES			
CalWater Unit HU TEHAMA	CalWater Unit HSA Red Bluff			
	Natural Stream Channel?			
Is there a definable channel upstream of culvert?	Yes			
Is the primary function for storm water runoff or road	drainage?: Yes			
Is the waterway a concrete-lined flood control channel				
,	Potential Fish Bearing Stream?			
Does the site centain as active abound width . 2 fee	-			
Does the site contain an active channel width >2 fee Is the stream gradient < 20%?	Yes			
is the stream gradient < 20%:	Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhe				
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook	\exists			
Central Valley Steelhead				
	Historic Anadromous Reach?			
Has the stream reach upstream of the crossing supp	orted an anadromous fish population?			
Source	 -			
	Crossing Type			
Crossing Type Culvert	ID			
General Description: Concrete box culvert in a conc	crete form.			
	Photos			
3.1 Upstream Looking Upstream - Photo I	n/a			
3.2 Upstream Looking Downstream - Photo I	n/a			
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_36.6_DU			
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_36.6_DD			
Detailed Survey Required?				
Detailed Survey Required?: No				

County: Butte Route: 99 Postmile: 36.60 Survey Date: 02/02/2016

Upstream Looking Upstream	Upstream Looking Downstream
N/A	N/A
Downstream Looking Upstream	Downstream Looking Downstream

RECONNAISSANCE SURVEY INFORMATION				
County: BUT	Route: 99	PM: 37.20		
	Survey Information			
Date 2/2/2016 Time 12:	20 Agency Performing Survey HDR			
Data Recorder NO (24 hr.	clock) Survey Team NO, ST			
	Site Information			
	GPS Data			
Longitude -121.885451 Latitu	de 39.783967			
GPS HDOP 2 Loc. o	of GPS Point above outlet PM			
	Hydrologic Information			
Stream Name Mud Creek	Source: CT Bridge log			
Basin East Red Bluff HA	Quad Name (7.5') NORD			
USGS Hydrologic Unit SACRAMENTO-LOWER				
CalWater Unit HU TEHAMA	CalWater Unit HSA Red Bluff			
-	Network Chrome Channell			
In the control of could be about the control of could be set	Natural Stream Channel?			
Is there a definable channel upstream of culvert?	Yes			
Is the primary function for storm water runoff or road	drainage?: No No			
Is the waterway a concrete-lined flood control chann-	el? No			
	Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 fee	t? Yes			
Is the stream gradient < 20%?	Yes			
	Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)			
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead				
	Historic Anadromous Reach?			
Has the stream reach upstream of the crossing supp	orted an anadromous fish population? Yes			
Source CV Spring-run 5-Year Status Review	(NMFS 2005)			
	Crossing Type			
Crossing Type bridge w/o potential passage of	constraints ID 12-0156			
General Description:				
	Photos			
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_37.20_UU			
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_37.20_UD			
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_37.20_DU			
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_37.20_DD			
Detailed Survey Required?				
Detailed Survey Required?: No				

County: Butte Route: 99 Postmile: 37.20 Survey Date: 02/02/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION					
County: BUT	Route: 99	PM: 37.50			
	Survey Information				
Date 2/2/2016 Time 1	2:00 Agency Performing Survey HD	DR .			
Data Recorder ST, NO (24)	hr. clock) Survey Team ST, NO				
	Site Information				
	GPS Data				
Longitude -121.889731 Lati	tude 39.788023				
GPS HDOP 2 Loc	of GPS Point above outlet	PM			
	Hydrologic Information				
Stream Name unknown	Source:				
Basin East Red Bluff HA	Quad Name (7.5') NORD				
USGS Hydrologic Unit SACRAMENTO-LOWE					
CalWater Unit HU TEHAMA	CalWater Unit HSA Red Bluff				
<u>'</u>	Natural Stream Channel?				
Is there a definable channel upstream of culvert?	No No				
·					
Is the primary function for storm water runoff or roa					
Is the waterway a concrete-lined flood control char	<u> </u>				
	Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 for	eet? No				
Is the stream gradient < 20%?	Yes				
	Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steell	nead)				
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chinook					
Central Valley Steelhead					
	Historic Anadromous Reach?				
Has the stream reach upstream of the crossing su	pported an anadromous fish population?				
Source					
	Crossing Type				
Crossing Type Culvert	ID				
General Description: Concrete pipe culvert with concrete precast end sections.					
	Photos				
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_37.50_UU				
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_37.50_UD				
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_37.50_DU				
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_37.50_DD				
Detailed Survey Required?					
Detailed Survey Required?: No					

County: Butte Route: 99 Postmile: 37.50 Survey Date: 02/02/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION					
County: BUT	Rou	te: 99			PM: 39.10
	Surv	ey Information			
Date 2/2/2016	Time 11:37	Agency Performing	Survey	HDR]
Data Recorder ST, NO	(24 hr. clock)	Survey Team ST	T, NO		
	Site	e Information			
		GPS Data			
Longitude -121	.904777 Latitude	39.799697			
GPS HDOP	4 Loc. of GPS Point	above outlet		PM	
	Hydro	ologic Information			
Stream Name unknown		So	ource:		
Basin East Re	ed Bluff HA	Quad Name (7.5')	NORD		
USGS Hydrologic Unit SACRA	MENTO-LOWER_THOMES	CalWater Unit HA	Red Bluff		
CalWater Unit HU TEHAM	Α (CalWater Unit HSA	Red Bluff		
	Natura	al Stream Channel?			
Is there a definable channel upstre		No			
Is the primary function for storm wa		Yes	<u>-</u>		
Is the waterway a concrete-lined flo	_	No			
is the waterway a concrete-lined lic					
	Potentiai	Fish Bearing Stream?			
Does the site contain an active cha	nnel width >2 feet?	No			
Is the stream gradient < 20%?		Yes			
		monid ESU/DPS			
ESU (Chinook and Coho Salmon)					
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run C	Chinook				
Central Valley Steelhead	Historia	Anadramana Basaka			
		Anadromous Reach?			
Has the stream reach upstream of	the crossing supported an anadro	mous fish population?	No		
Source		Crossing Type			
Consider Time Cultion		ID			
Crossing Type Culvert General Description: Doulble cond	crete hox culvert in a concrete form				
Photos					
3.1 Upstream Looking Upstream -	Photo I 3.1_BUT_99_3				
3.2 Upstream Looking Downstream					
Opstream Looking Downstream Solution Opstream Looking Upstream Looking Upstr					
3.4 Downstream Looking Downstr					
Detailed Survey Required?					
Detailed Survey Required?.	No				

County: Butte Route: 99 Postmile: 39.10 Survey Date: 02/02/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION				
County: BUT	Route: 99	PM: 39.70		
	Survey Information			
Date 2/2/2016 Time 11	1:23 Agency Performing Survey HDR			
Data Recorder ST,NO (24 h	r. clock) Survey Team ST, NO			
	Site Information			
	GPS Data			
Longitude -121.910819 Latit	ude 39.80665			
GPS HDOP 5 Loc.	of GPS Point above outlet PM			
	Hydrologic Information			
Stream Name unknown	Source:			
Basin East Red Bluff HA	Quad Name (7.5') NORD			
USGS Hydrologic Unit SACRAMENTO-LOWER	R_THOMES CalWater Unit HA Red Bluff			
CalWater Unit HU TEHAMA	CalWater Unit HSA Red Bluff			
	Natural Stream Channel?			
Is there a definable channel upstream of culvert?	No			
Is the primary function for storm water runoff or road				
Is the waterway a concrete-lined flood control chann				
	Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 fe	et? No			
Is the stream gradient < 20%?	Yes			
	Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelho	ead)			
Central Valley Spring-Run Chinook	<u> </u>			
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead				
	Historic Anadromous Reach?			
Has the stream reach upstream of the crossing sup	ported an anadromous fish population?			
Source				
	Crossing Type			
Crossing Type Culvert	ID			
General Description: Corrugated plastic pipe culvert with projections.				
	Photos			
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_39.70_UU			
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_39.70_UD			
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_39.70_DU			
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_39.70_DD			
Detailed Survey Required?				
Detailed Survey Required?: No				
B . B				

County: Butte Route: 99 Postmile: 39.70 Survey Date: 02/02/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT Route: 99	PM: 3	39.71	
Survey Information			
Date 2/2/2016 Time 11:02 Agency Performing Survey HDR]		
Data Recorder ST, NO (24 hr. clock) Survey Team ST, NO			
Site Information			
GPS Data			
Longitude -121.911975 Latitude 39.807904			
GPS HDOP 1 Loc. of GPS Point above inlet PM			
Hydrologic Information			
Stream Name Keefer Slough Source: CT Bridge log			
Basin East Red Bluff HA Quad Name (7.5') NORD			
USGS Hydrologic Unit SACRAMENTO-LOWER_THOMES CalWater Unit HA Red Bluff	Ī		
CalWater Unit HU TEHAMA CalWater Unit HSA Red Bluff	=		
Natural Otracon Observation			
Natural Stream Channel?			
Is there a definable channel upstream of culvert?			
Is the primary function for storm water runoff or road drainage?:			
Is the waterway a concrete-lined flood control channel?			
Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 feet?			
Is the stream gradient < 20%?			
Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhead)			
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
Historic Anadromous Reach?			
Has the stream reach upstream of the crossing supported an anadromous fish population? Unknown			
Source Tributary to Rock Creek			
Crossing Type			
Crossing Type bridge w/o potential passage constraints ID 12-0026			
General Description:			
Photos			
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_39.71_UU			
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_39.71_UD			
3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_39.71_DU			
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_39.71_DD			
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 39.71 Survey Date: 02/02/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 39.90	
	Survey Information		
Date 2/2/2016 Time	10:42 Agency Performing Survey H	DR	
Data Recorder ST, NO	(24 hr. clock) Survey Team ST, NO		
	Site Information		
	GPS Data		
Longitude -121.914308	Latitude 39.809652		
GPS HDOP 5	Loc. of GPS Point above outlet	PM	
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Red Bluff HA	Quad Name (7.5') NORD		
USGS Hydrologic Unit SACRAMENTO-LO	WER_THOMES CalWater Unit HA Red Bluff		
CalWater Unit HU TEHAMA	CalWater Unit HSA Red Bluff		
	Natural Stream Channel?		
Is there a definable channel upstream of culver	t? No		
Is the primary function for storm water runoff or	road drainage?: Yes		
Is the waterway a concrete-lined flood control of			
,	Potential Fish Bearing Stream?		
	-		
Does the site contain an active channel width			
Is the stream gradient < 20%?	Yes		
ESU (Chinook and Coho Salmon) or DPS (St	Salmonid ESU/DPS		
Central Valley Spring-Run Chinook	eemeau)		
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
Samuel Valley Classificad	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing			
Source			
	Crossing Type		
Crossing Type Culvert	ID		
General Description: Concrete box culvert in a	a concrete form.		
	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_39.90_UU		
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_39.90_UD		
3.3 Downstream Looking Upstream - Photo ID			
3.4 Downstream Looking Downstream - Photo	3.4_BUT_99_39.90_DD		
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 39.90 Survey Date: 02/02/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT Route: 99 PM: 4	40.30		
Survey Information			
Date 2/2/2016 Time 10:24 Agency Performing Survey HDR			
Data Recorder ST, NO Survey Team ST, NO			
Site Information			
GPS Data			
Longitude -121.91837 Latitude 39.813871			
GPS HDOP 0.1 Loc. of GPS Point above outlet PM			
Hydrologic Information			
Stream Name unknown Source:			
Basin East Red Bluff HA Quad Name (7.5') NORD			
USGS Hydrologic Unit SACRAMENTO-LOWER_THOMES CalWater Unit HA Red Bluff			
CalWater Unit HU TEHAMA CalWater Unit HSA Red Bluff			
Natural Stream Channel?			
Is there a definable channel upstream of culvert?			
Is the primary function for storm water runoff or road drainage?: Yes			
Is the waterway a concrete-lined flood control channel?			
Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 feet?			
Is the stream gradient < 20%?			
Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhead)			
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead			
Historic Anadromous Reach?			
Has the stream reach upstream of the crossing supported an anadromous fish population?			
Source			
Crossing Type			
Crossing Type Culvert ID			
General Description: Concrete box culvert in a concrete form.			
Photos			
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_40.30_UU			
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_40.30_UD			
3.3 Downstream Looking Upstream - Photo ID 3.3 BUT_99_40.30_DU			
3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_40.30_DD			
Detailed Survey Required?			
Detailed Survey Required?: No			

County: Butte Route: 99 Postmile: 40.30 Survey Date: 02/02/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



Central Valley Spring-Run Chinook Central Valley Fall_Late Fall-Run Chinook Central Valley Steelhead Historic Anadromous Reach? Has the stream reach upstream of the crossing supported an anadromous fish population? Source CV Spring-run 5-Year Status Review (NMFS 2005) Crossing Type Crossing Type Crossing Type bridge w/o potential passage constraints ID 12-0027 General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_40.65_UU 3.2 Upstream Looking Downstream - Photo ID 3.3_BUT_99_40.65_DU	RECONNAISSANCE SURVEY INFORMATION			
Date 2/1/2016 Time 16:30 Agency Performing Survey HDR Date Recorder NO (24 hr. clock) Survey Team NO. ST	County: BUT Route: 99	M: 40.65		
Survey Team NO, ST	Survey Information			
Site Information GPS Data Longitude	Date 2/1/2016 Time 16:30 Agency Performing Survey HDR			
Longitude	Data Recorder NO (24 hr. clock) Survey Team NO, ST			
Longitude	Site Information			
Stream Name Rock Creek Source: CT Bridge log	GPS Data			
Stream Name Rock Creek Source: CT Bridge log Basin East Red Bluff HA Quad Name (7.5) NORD USGS Hydrologic Unit SACRAMENTO-LOWER_THOMES CalWater Unit HA Red Bluff CalWater Unit HU TEHAMA CalWater Unit HSA Red Bluff Stream Channel Upstream of culvert? Yes Is the primary function for storm water runoff or road drainage?: No Is the waterway a concrete-lined flood control channel? No Potential Fish Bearing Stream? Does the site contain an active channel width >2 feet? Yes Is the stream gradient < 20%? Yes Salmonid ESU/DPS ESU (Chinook and Coho Salmon) or DPS (Steelhead) Central Valley Spring-Run Chinook Central Valley Spring-Run Chinook Central Valley Spring-Run Chinook Central Valley Steelhead Has the stream reach upstream of the crossing supported an anadromous fish population? Yes Source CV Spring-run 6-Year Status Review (NMFS 2005) Crossing Type Fidige w/o potential passage constraints ID [2-0027] General Description: Photos 3.1 Upstream Looking Upstream - Photo I S.2 BUT 99 40.65 UU 3.3 Downstream Looking Upstream - Photo ID S.3 BUT 99 40.65 UU 3.3 BUT 99 40.65 DU	Longitude -121.922494 Latitude 39.819311			
Stream Name Rock Creek Source: CT Bridge log Basin East Red Bluff HA Quad Name (7.5) NORD USGS Hydrologic Unit SACRAMENTO-LOWER THOMES CalWater Unit HA Red Bluff CalWater Unit HU TEHAMA CalWater Unit HSA Red Bluff Natural Stream Channel? Is there a definable channel upstream of culvert? Yes Is the primary function for storm water runoff or road drainage?: No Is the waterway a concrete-lined flood control channel? Potential Fish Bearing Stream? Does the site contain an active channel width >2 feet? Yes Is the stream gradient < 20%? Yes Salmonid ESU/DPS ESU (Chinook and Coho Salmon) or DPS (Steethead) Central Valley Spring-Run Chinook Central Valley Fall. Late Fall-Run Chinook Central Valley Fall. Late Fall-Run Chinook Central Valley Steethead Historic Anadromous Reach? Has the stream reach upstream of the crossing supported an anadromous fish population? Yes Source CV Spring-run 5-Year Status Review (NMFS 2005) Crossing Type Crossing Type Crossing Type bridge w/o potential passage constraints ID 12-0027 General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.2 BUT 99 40.65 UU 3.3 BUT 99 40.65 UU 3.3 BUT 99 40.65 DU	GPS HDOP 1 Loc. of GPS Point above outlet PM			
Basin	Hydrologic Information			
USGS Hydrologic Unit CalWater Unit HU TEHAMA CalWater Unit HSA Red Bluff Natural Stream Channel? Is there a definable channel upstream of culvert? Yes Is the primary function for storm water runoff or road drainage?: Is the waterway a concrete-lined flood control channel? No Potential Fish Bearing Stream? Does the site contain an active channel width >2 feet? Yes Is the stream gradient < 20%? Salmonid ESU/DPS ESU (Chinook and Coho Salmon) or DPS (Steelhead) Central Valley Spring-Run Chinook Central Valley Fall_Late Fall-Run Chinook Central Valley Steelhead Historic Anadromous Reach? Has the stream reach upstream of the crossing supported an anadromous fish population? Crossing Type Crossing Type Crossing Type bridge w/o potential passage constraints ID 12-0027 General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.2_BUT_99_40.65_UD 3.3 Downstream Looking Upstream - Photo I 3.3_BUT_99_40.65_DU	Stream Name Rock Creek Source: CT Bridge log			
USGS Hydrologic Unit CalWater Unit HU TEHAMA CalWater Unit HSA Red Bluff Natural Stream Channel? Is there a definable channel upstream of culvert? Yes Is the primary function for storm water runoff or road drainage?: Is the waterway a concrete-lined flood control channel? No Potential Fish Bearing Stream? Does the site contain an active channel width >2 feet? Yes Is the stream gradient < 20%? Salmonid ESU/DPS ESU (Chinook and Coho Salmon) or DPS (Steelhead) Central Valley Spring-Run Chinook Central Valley Fall_Late Fall-Run Chinook Central Valley Steelhead Historic Anadromous Reach? Has the stream reach upstream of the crossing supported an anadromous fish population? Crossing Type Crossing Type Crossing Type bridge w/o potential passage constraints ID 12-0027 General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.2_BUT_99_40.65_UD 3.3 Downstream Looking Upstream - Photo I 3.3_BUT_99_40.65_DU	Basin East Red Bluff HA Quad Name (7.5') NORD	1		
CalWater Unit HU TEHAMA CalWater Unit HSA Red Bluff Natural Stream Channel? Is there a definable channel upstream of culvert? Yes Is the primary function for storm water runoff or road drainage?: No Is the waterway a concrete-lined flood control channel? No Potential Fish Bearing Stream? Does the site contain an active channel width >2 feet? Is the stream gradient < 20%? Yes Is the stream gradient < 20%? Salmonid ESU/DPS ESU (Chinook and Coho Salmon) or DPS (Steelhead) Central Valley Spring-Run Chinook Central Valley Fall_Late Fall-Run Chinook Central Valley Steelhead Historic Anadromous Reach? Has the stream reach upstream of the crossing supported an anadromous fish population? Crossing Type Crossing Type Crossing Type Crossing Type Diddge w/o potential passage constraints ID 12-0027 General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_40.65_UD 3.3 Downstream Looking Upstream - Photo I 3.3_BUT_99_40.65_UD]		
Is there a definable channel upstream of culvert? Is the primary function for storm water runoff or road drainage?: Is the waterway a concrete-lined flood control channel? No Potential Fish Bearing Stream? Does the site contain an active channel width >2 feet? Is the stream gradient < 20%? Salmonid ESU/DPS ESU (Chinook and Coho Salmon) or DPS (Steelhead) Central Valley Spring-Run Chinook Central Valley Fall_Late Fall-Run Chinook Central Valley Steelhead Historic Anadromous Reach? Has the stream reach upstream of the crossing supported an anadromous fish population? Source CV Spring-run 5-Year Status Review (NMFS 2005) Crossing Type Crossing Type Dridge w/o potential passage constraints ID 12-0027 General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.2 BUT_99_40.65_UD 3.3 Downstream Looking Upstream - Photo ID 3.3 BUT_99_40.65_UD	=	1		
Is there a definable channel upstream of culvert? Is the primary function for storm water runoff or road drainage?: Is the waterway a concrete-lined flood control channel? Potential Fish Bearing Stream? Does the site contain an active channel width >2 feet? Is the stream gradient < 20%? Salmonid ESU/DPS ESU (Chinook and Coho Salmon) or DPS (Steelhead) Central Valley Spring-Run Chinook Central Valley Spring-Run Chinook Central Valley Steelhead Historic Anadromous Reach? Has the stream reach upstream of the crossing supported an anadromous fish population? Yes Source CV Spring-run 5-Year Status Review (NMFS 2006) Crossing Type Crossing Type bridge w/o potential passage constraints ID 12-0027 General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.2 BUT_99_40.65_UD 3.3 Downstream Looking Downstream - Photo I 3.3_BUT_99_40.65_DU		1		
Is the primary function for storm water runoff or road drainage?: Is the waterway a concrete-lined flood control channel? Potential Fish Bearing Stream? Does the site contain an active channel width >2 feet? Is the stream gradient < 20%? Salmonid ESU/DPS ESU (Chinook and Coho Salmon) or DPS (Steelhead) Central Valley Spring-Run Chinook Central Valley Fall_Late Fall-Run Chinook Central Valley Steelhead Historic Anadromous Reach? Has the stream reach upstream of the crossing supported an anadromous fish population? Source CV Spring-run 5-Year Status Review (NMFS 2005) Crossing Type Crossing Type Crossing Type bridge w/o potential passage constraints ID 12-0027 General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_40.65_UU 3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_40.65_UD 3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_40.65_UD				
Is the waterway a concrete-lined flood control channel? Potential Fish Bearing Stream? Does the site contain an active channel width >2 feet? Is the stream gradient < 20%? Salmonid ESU/DPS ESU (Chinook and Coho Salmon) or DPS (Steelhead) Central Valley Spring-Run Chinook Central Valley Fall_Late Fall-Run Chinook Central Valley Steelhead Historic Anadromous Reach? Has the stream reach upstream of the crossing supported an anadromous fish population? Source CV Spring-run 5-Year Status Review (NMFS 2005) Crossing Type Crossing Type Crossing Type Dridge w/o potential passage constraints ID 12-0027 General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.2 BUT_99_40.65_UU 3.3 Downstream Looking Upstream - Photo ID 3.3 BUT_99_40.65_DU	Is there a definable channel upstream of culvert?			
Potential Fish Bearing Stream? Does the site contain an active channel width >2 feet? Yes Is the stream gradient < 20%? Yes Salmonid ESU/DPS ESU (Chinook and Coho Salmon) or DPS (Steelhead) Central Valley Spring-Run Chinook Central Valley Fall_Late Fall-Run Chinook Central Valley Steelhead Historic Anadromous Reach? Has the stream reach upstream of the crossing supported an anadromous fish population? Yes Source CV Spring-run 5-Year Status Review (NMFS 2005) Crossing Type Crossing Type bridge w/o potential passage constraints ID 12-0027 General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_40.65_UU 3.2 Upstream Looking Downstream - Photo ID 3.3_BUT_99_40.65_UD 3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_40.65_DU	Is the primary function for storm water runoff or road drainage?:			
Does the site contain an active channel width >2 feet? Is the stream gradient < 20%? Salmonid ESU/DPS ESU (Chinook and Coho Salmon) or DPS (Steelhead) Central Valley Spring-Run Chinook Central Valley Fall_Late Fall-Run Chinook Central Valley Steelhead Historic Anadromous Reach? Has the stream reach upstream of the crossing supported an anadromous fish population? Source CV Spring-run 5-Year Status Review (NMFS 2005) Crossing Type Crossing Type Crossing Type bridge w/o potential passage constraints General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.2 BUT_99_40.65_UU 3.3 Downstream Looking Upstream - Photo ID 3.3 BUT_99_40.65_DU	Is the waterway a concrete-lined flood control channel?			
Salmonid ESU/DPS ESU (Chinook and Coho Salmon) or DPS (Steelhead) Central Valley Spring-Run Chinook Central Valley Fall_Late Fall-Run Chinook Central Valley Steelhead Historic Anadromous Reach? Has the stream reach upstream of the crossing supported an anadromous fish population? Crossing Type Crossing Type Crossing Type Crossing Type bridge w/o potential passage constraints Bl 12-0027 General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.2 BUT_99_40.65_UU 3.3 Downstream Looking Upstream - Photo ID 3.3 BUT_99_40.65_DU	Potential Fish Bearing Stream?			
Salmonid ESU/DPS ESU (Chinook and Coho Salmon) or DPS (Steelhead) Central Valley Spring-Run Chinook Central Valley Steelhead Historic Anadromous Reach? Has the stream reach upstream of the crossing supported an anadromous fish population? Source CV Spring-run 5-Year Status Review (NMFS 2005) Crossing Type Crossing Type bridge w/o potential passage constraints ID 12-0027 General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_40.65_UU 3.2 Upstream Looking Downstream - Photo ID 3.3_BUT_99_40.65_DU	Does the site contain an active channel width >2 feet?			
Central Valley Spring-Run Chinook Central Valley Fall_Late Fall-Run Chinook Central Valley Steelhead Historic Anadromous Reach? Has the stream reach upstream of the crossing supported an anadromous fish population? Yes Source CV Spring-run 5-Year Status Review (NMFS 2005) Crossing Type Crossing Type Didge w/o potential passage constraints Photos 3.1 Upstream Looking Upstream - Photo I 3.2 BUT_99_40.65_UU 3.3 Downstream Looking Upstream - Photo ID 3.3 BUT_99_40.65_DU	Is the stream gradient < 20%?			
Central Valley Spring-Run Chinook Central Valley Fall_Late Fall-Run Chinook Central Valley Steelhead Historic Anadromous Reach? Has the stream reach upstream of the crossing supported an anadromous fish population? Source CV Spring-run 5-Year Status Review (NMFS 2005) Crossing Type Crossing Type Crossing Type bridge w/o potential passage constraints ID 12-0027 General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_40.65_UU 3.2 Upstream Looking Downstream - Photo ID 3.3_BUT_99_40.65_DU	Salmonid ESU/DPS			
Central Valley Fall Late Fall-Run Chinook Central Valley Steelhead Historic Anadromous Reach? Has the stream reach upstream of the crossing supported an anadromous fish population? Source CV Spring-run 5-Year Status Review (NMFS 2005) Crossing Type Crossing Type Crossing Type bridge w/o potential passage constraints ID 12-0027 General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_40.65_UU 3.2 Upstream Looking Downstream - Photo ID 3.3_BUT_99_40.65_UD 3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_40.65_DU	ESU (Chinook and Coho Salmon) or DPS (Steelhead)			
Historic Anadromous Reach? Has the stream reach upstream of the crossing supported an anadromous fish population? Source CV Spring-run 5-Year Status Review (NMFS 2005) Crossing Type Crossing Type bridge w/o potential passage constraints ID 12-0027 General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_40.65_UU 3.2 Upstream Looking Downstream - Photo ID 3.3_BUT_99_40.65_DU	Central Valley Spring-Run Chinook			
Historic Anadromous Reach? Has the stream reach upstream of the crossing supported an anadromous fish population? Source CV Spring-run 5-Year Status Review (NMFS 2005) Crossing Type Crossing Type bridge w/o potential passage constraints ID 12-0027 General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_40.65_UU 3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_40.65_UD 3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_40.65_DU	Central Valley Fall_Late Fall-Run Chinook			
Has the stream reach upstream of the crossing supported an anadromous fish population? Source CV Spring-run 5-Year Status Review (NMFS 2005) Crossing Type Crossing Type Didge w/o potential passage constraints Photos 3.1 Upstream Looking Upstream - Photo I 3.2 Upstream Looking Downstream - Photo I 3.3 Downstream Looking Upstream - Photo ID 3.3 BUT_99_40.65_DU	Central Valley Steelhead			
Source CV Spring-run 5-Year Status Review (NMFS 2005) Crossing Type Crossing Type bridge w/o potential passage constraints ID 12-0027 General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_40.65_UU 3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_40.65_UD 3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_40.65_DU	Historic Anadromous Reach?			
Source CV Spring-run 5-Year Status Review (NMFS 2005) Crossing Type Crossing Type bridge w/o potential passage constraints ID 12-0027 General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_40.65_UU 3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_40.65_UD 3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_40.65_DU	Has the stream reach upstream of the crossing supported an anadromous fish population? Yes			
Crossing Type bridge w/o potential passage constraints ID 12-0027 General Description: Photos 3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_40.65_UU 3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_40.65_UD 3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_40.65_DU				
Photos 3.1 Upstream Looking Upstream - Photo I 3.2 Upstream Looking Downstream - Photo I 3.3 Downstream Looking Upstream - Photo ID 3.4 Upstream Looking Upstream - Photo ID 3.5 Downstream Looking Upstream - Photo ID 3.6 DU 3.7 Downstream Looking Upstream - Photo ID 3.8 Downstream Looking Upstream - Photo ID	Crossing Type			
Photos 3.1 Upstream Looking Upstream - Photo I 3.2 Upstream Looking Downstream - Photo I 3.3 Downstream Looking Upstream - Photo ID 3.4 Downstream Looking Upstream - Photo ID 3.5 Downstream Looking Upstream - Photo ID 3.6 Downstream Looking Upstream - Photo ID	Crossing Type bridge w/o potential passage constraints ID 12-0027			
3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_40.65_UU 3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_40.65_UD 3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_40.65_DU	General Description:			
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_40.65_UD 3.3_BUT_99_40.65_DU	Photos			
3.2 Upstream Looking Downstream - Photo I 3.2_BUT_99_40.65_UD 3.3_BUT_99_40.65_DU	3.1 Upstream Looking Upstream - Photo I 3.1_BUT_99_40.65_UU			
3.3 Downstream Looking Upstream - Photo ID 3.3_BUT_99_40.65_DU				
6.7 Bothlotroam Ecoloring Bothlotroam 1 note is 0.4_Bo1_00_40.00_Bb	3.4 Downstream Looking Downstream - Photo ID 3.4_BUT_99_40.65_DD			
Detailed Survey Required?				
Detailed Survey Required?: No				

County: Butte Route: 99 Postmile: 40.65 Survey Date: 02/01/2016

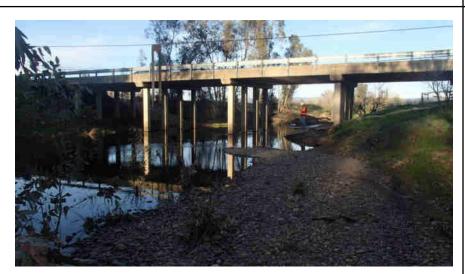
Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONN	AISSANCE SURVEY INFORMATION	
County: BUT	Route: 99	PM: 40.90
	Survey Information	
Date 2/2/2016 Time 10	:10 Agency Performing Survey HDR	
Data Recorder ST, NO (24 hr	clock) Survey Team ST, NO	
	Site Information	
	GPS Data	
Longitude -121.92398 Latitu	de 39.821104	
GPS HDOP 4 Loc.	of GPS Point above outlet P	M
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Red Bluff HA	Quad Name (7.5') NORD	
USGS Hydrologic Unit SACRAMENTO-LOWER	_THOMES CalWater Unit HA Red Bluff	
CalWater Unit HU TEHAMA	CalWater Unit HSA Red Bluff	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	Yes	
Is the primary function for storm water runoff or road	drainage? No	
Is the waterway a concrete-lined flood control chann	<u> </u>	
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fee	et? Yes	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing supp	ported an anadromous fish population? Unknown	
Source		
	Crossing Type	
Crossing Type Culvert	ID	
General Description: Concrete box culvert in a concrete form.		
-	Photos	
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_40.90_UU	
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_40.90_UD	
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_40.90_DU	
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_40.90_DD	
	Detailed Survey Required?	
Detailed Survey Required?: Yes		
Report Date 03-15-2016		

RECONNAISSANCE SURVEY INFORMATION Route: 99 County: BUT PM: 40.90 **Access Information** Land Ownership: Upstream private Owner(s) Downstream private Owner(s) Accessible from road? Upstream? Yes Limitations Downstream? Yes Limitations **Vegetation Removal Required?** No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID Comments Maintenance Assistance Required? No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No Downstream? (If "Yes", comment and take photograph) Photo ID Comments **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVÉRT Is culvert diameter > 60"?

Yes

Report Date 03-15-2016

Can you see all the way through the end of the culvert?

Can you feel a breeze through the culvert?

County: Butte Route: 99 Postmile: 40.90 Survey Date: 02/02/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECON	RECONNAISSANCE SURVEY INFORMATION		
County: BUT	Route: 99	PM: 41.14	
	Survey Information		
Date 2/2/2016 Time 9	:51 Agency Performing Survey HDR	2	
Data Recorder ST, NO (24 h	r. clock) Survey Team ST, NO		
	Site Information		
	GPS Data		
Longitude -121.927307 Latit	ude 39.82532		
GPS HDOP 3 Loc.	of GPS Point above outlet	PM	
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Red Bluff HA	Quad Name (7.5') NORD		
USGS Hydrologic Unit SACRAMENTO-LOWER	R_THOMES CalWater Unit HA Red Bluff		
CalWater Unit HU TEHAMA	CalWater Unit HSA Red Bluff		
	Natural Stream Channel?		
Is there a definable channel upstream of culvert?	Yes		
Is the primary function for storm water runoff or road	d drainage?:		
Is the waterway a concrete-lined flood control change			
is the waterway a concrete-lined hood control charm			
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fe	et? Yes		
Is the stream gradient < 20%?	Yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelh	ead)		
Central Valley Spring-Run Chinook			
Central Valley Fall_Late Fall-Run Chinook			
Central Valley Steelhead	Historia Anadromous Booch?		
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing sup	ported an anadromous fish population? Unknown		
Source	Crossing Type		
Crossing Type Culturate	ID		
Crossing Type Culvert			
General Description: Double concrete box in a concrete form.			
2.4 Unetroom Looking Unetroom - Photo I	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_41.14_UU	=	
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_41.14_UD	=	
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_41.14_DU		
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_41.14_DD		
	Detailed Survey Required?		
Detailed Survey Required?: Yes			
Report Date 03-15-2016			

RECONNAISSANCE SURVEY INFORMATION Route: 99 County: BUT PM: 41.14 **Access Information** Land Ownership: Upstream private Owner(s) Downstream private Owner(s) Accessible from road? Upstream? Yes Limitations Downstream? Yes Limitations **Vegetation Removal Required?** No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID Comments Maintenance Assistance Required? No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No Downstream? (If "Yes", comment and take photograph) Photo ID Comments **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVÉRT Is culvert diameter > 60"?

Yes Yes

Report Date 03-15-2016

Can you see all the way through the end of the culvert?

Can you feel a breeze through the culvert?

County: Butte Route: 99 Postmile: 41.14 Survey Date: 02/02/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION			
County: BUT	Route: 99	PM: 41.70	
	Survey Information		
Date 2/2/2016 Time 9:	35 Agency Performing Survey HDR		
Data Recorder ST, NO (24 hr.	clock) Survey Team ST, NO		
	Site Information		
	GPS Data		
Longitude -121.931572 Latitu	de 39.830323		
GPS HDOP 3 Loc. o	of GPS Point above outlet PM		
	Hydrologic Information		
Stream Name unknown	Source:		
Basin East Red Bluff HA	Quad Name (7.5') NORD		
USGS Hydrologic Unit SACRAMENTO-LOWER			
CalWater Unit HU TEHAMA	CalWater Unit HSA Red Bluff		
	Natural Stream Channel?		
Is there a definable channel upstream of culvert?	Yes		
Is the primary function for storm water runoff or road	a.aage		
Is the waterway a concrete-lined flood control chann-			
	Potential Fish Bearing Stream?		
Does the site contain an active channel width >2 fee	t? Yes		
Is the stream gradient < 20%?	Yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)		
Central Valley Spring-Run Chinook	<u> </u>		
Central Valley Fall_Late Fall-Run Chinook	ᆜ		
Central Valley Steelhead			
	Historic Anadromous Reach?		
Has the stream reach upstream of the crossing supp	orted an anadromous fish population? Unknown		
Source			
	Crossing Type		
Crossing Type Culvert	ID		
General Description: Double concrete box culvert in			
	Photos		
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_41.70_UU	<u> </u>	
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_41.70_UD	<u> </u>	
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_41.70_DU	<u> </u>	
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_41.70_DD		
	Detailed Survey Required?		
Detailed Survey Required?: Yes			

RECONNAISSANCE SURVEY INFORMATION Route: 99 County: BUT PM: 41.70 **Access Information** Land Ownership: Upstream private Owner(s) Downstream private Owner(s) Accessible from road? Upstream? Yes Limitations Downstream? Yes Limitations **Vegetation Removal Required?** No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID Comments Maintenance Assistance Required? No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No Downstream? (If "Yes", comment and take photograph) Photo ID Comments **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVÉRT Is culvert diameter > 60"?

Yes Yes

Report Date 03-15-2016

Can you see all the way through the end of the culvert?

Can you feel a breeze through the culvert?

County: Butte Route: 99 Postmile: 41.70 Survey Date: 02/02/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONN	IAISSANCE SURVEY INFORMATION	
County: BUT	Route: 99	PM: 41.90
	Survey Information	
Date 2/2/2016 Time 9	:24 Agency Performing Survey HDR	
Data Recorder ST, NO (24 hr	r. clock) Survey Team ST, NO	
	Site Information	
	GPS Data	
Longitude -121.934093 Latitu	ude 39.833122	
GPS HDOP 3 Loc.	of GPS Point above outlet PM	
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Red Bluff HA	Quad Name (7.5') NORD	
USGS Hydrologic Unit SACRAMENTO-LOWER	R_THOMES CalWater Unit HA Red Bluff	
CalWater Unit HU TEHAMA	CalWater Unit HSA Red Bluff	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	No	
Is the primary function for storm water runoff or road	d drainage?:	
Is the waterway a concrete-lined flood control chann		
,	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fee	et? No Yes	
Is the stream gradient < 20%?	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhe		
Central Valley Spring-Run Chinook	edu)	
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing sup	ported an anadromous fish population?	
Source	· · · · · · · · · · · · · · · · · · ·	
	Crossing Type	
Crossing Type Culvert	ID	
General Description: Concrete box culvert in a con	ncrete form.	
	Photos	
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_41.90_UU	
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_41.90_UD	
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_41.90_DU	
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_41.90_DD	
	Detailed Survey Required?	
Detailed Survey Required?: No		

County: Butte Route: 99 Postmile: 41.90 Survey Date: 02/02/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONN	AISSANCE SURVEY INFORMATION	
County: BUT	Route: 99	PM: 42.30
	Survey Information	
Date 2/2/2016 Time 8:	50 Agency Performing Survey H	IDR
Data Recorder ST, NO (24 hr	. clock) Survey Team ST, NO	
	Site Information	
	GPS Data	
Longitude -121.938776 Latitu	de 39.838311	
GPS HDOP 5 Loc.	of GPS Point above outlet	PM
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Red Bluff HA	Quad Name (7.5') NORD	
USGS Hydrologic Unit SACRAMENTO-LOWER		
CalWater Unit HU TEHAMA	CalWater Unit HSA Red Bluff	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	Yes	
Is the primary function for storm water runoff or road		
	a.a.i.ago	
Is the waterway a concrete-lined flood control chann	<u> </u>	
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fee	et? Yes	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing supp	ported an anadromous fish population? Unknown	
Source		
	Crossing Type	
Crossing Type Culvert	ID	
General Description: Double concrete box culvert i	n a concrete form.	
	Photos	
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_42.30_UU	
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_42.30_UD	
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_42.30_DU	
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_42.30_DD	
	Detailed Survey Required?	
Detailed Survey Required?: Yes		
Report Date 03-15-2016		

RECONNAISSANCE SURVEY INFORMATION Route: 99 County: BUT PM: 42.30 **Access Information** Land Ownership: Upstream private Owner(s) Downstream private Owner(s) Accessible from road? Upstream? Yes Limitations Downstream? Yes Limitations **Vegetation Removal Required?** No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID Comments Maintenance Assistance Required? (If "Yes", comment and take photograph) No Upstream? Photo ID Comments No Downstream? (If "Yes", comment and take photograph) Photo ID Comments **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVÉRT Is culvert diameter > 60"? Can you see all the way through the end of the culvert?

Report Date 03-15-2016

Can you feel a breeze through the culvert?

County: Butte Route: 99 Postmile: 42.30 Survey Date: 02/02/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



	RECONNAISSAN	CE SURVEY IN	NFORMATIO	N		
County: BUT		ute: 99			PM:	42.70
	Su	rvey Information				
Date 2/2/2016	Time 8:35	Agency Performin	g Survey	HDR]	
Data Recorder ST	(24 hr. clock)	Survey Team	ST, NO			
	S	ite Information				
		GPS Data				
Longitude -121	1.943115 Latitude	39.843076				
GPS HDOP	3 Loc. of GPS Point	above outlet		PM		
	Нус	drologic Information				
Stream Name unknown			Source:			
Basin East Re	ed Bluff HA	Quad Name (7.5')	NORD			
USGS Hydrologic Unit SACRA	MENTO-LOWER_THOMES	CalWater Unit HA	Red Bluff			
CalWater Unit HU TEHAM	1A	CalWater Unit HSA	Red Bluff			
	Nati	ural Stream Channel?				
Is there a definable channel upstre		Yes				
Is the primary function for storm wa		No	<u></u>			
Is the waterway a concrete-lined flo	_	No				
is the waterway a concrete-lined no						
	Potent	ial Fish Bearing Stream	_			
Does the site contain an active cha	annel width >2 feet?	Yes				
Is the stream gradient < 20%?		Yes				
		Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon)	<u> </u>					
Central Valley Spring-Run Chinook						
Central Valley Fall_Late Fall-Run C	Chinook					
Central Valley Steelhead	112-4	. A J				
		ic Anadromous Reach?				
Has the stream reach upstream of	the crossing supported an anad	romous fish population?				
Source		Crossing Type				
O i T Others						
Crossing Type Culvert General Description: Two corruga	ted steel nine squashed culvert	ID	culvert all in a concre	te form		
General Description. Two corruga	ned steel pipe squashed culvert		culvert, all ill a concre	te ioiii.		
2.4 Unotroom Leable at Unater -	Dhoto I	Photos		1		
3.1 Upstream Looking Upstream -						
3.2 Upstream Looking Downstream						
3.3 Downstream Looking Upstream						
3.4 Downstream Looking Downstr						
	Detaile	ed Survey Required	1?			
Detailed Survey Required?:	Yes					
Report Date 03-15-2016						

RECONNAISSANCE SURVEY INFORMATION Route: 99 County: BUT PM: 42.70 **Access Information** Land Ownership: Upstream private Owner(s) Downstream private Owner(s) Accessible from road? Upstream? Yes Limitations Fence. Downstream? Yes Limitations **Vegetation Removal Required?** No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID Comments Maintenance Assistance Required? No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No Downstream? (If "Yes", comment and take photograph) Photo ID Comments **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVÉRT Is culvert diameter > 60"? Can you see all the way through the end of the culvert?

Report Date 03-15-2016

Can you feel a breeze through the culvert?

County: Butte Route: 99 Postmile: 42.70 Survey Date: 02/02/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RI	ECONNAISSAN	CE SURVEY IN	NFORMATIO	ON		
County: BUT		ute: 99			PM: 42.8	80
	Sur	vey Information				
Date 2/2/2016 Tir	me 8:19	Agency Performin	ng Survey	HDR		
Data Recorder ST, NO	(24 hr. clock)	Survey Team	ST, NO			
	Si	ite Information				
		GPS Data				
Longitude -121.944	191 Latitude	39.844213				
GPS HDOP	0.1 Loc. of GPS Point	above outlet		PM		
	Hyd	Irologic Information				
Stream Name unknown			Source:			
Basin East Red Blu	uff HA	Quad Name (7.5')	NORD			
USGS Hydrologic Unit SACRAMEN	TO-LOWER_THOMES	CalWater Unit HA	Red Bluff			
CalWater Unit HU TEHAMA		CalWater Unit HSA	Red Bluff			
	Natu	ıral Stream Channel?				
Is there a definable channel upstream o		No	<u> </u>			
Is the primary function for storm water re		No	=			
	_	No	=			
Is the waterway a concrete-lined flood c						
	Potenti	al Fish Bearing Stream	1?			
Does the site contain an active channel	width >2 feet?	No				
Is the stream gradient < 20%?		Yes				
	S	almonid ESU/DPS				
ESU (Chinook and Coho Salmon) or D	PS (Steelhead)					
Central Valley Spring-Run Chinook						
Central Valley Fall_Late Fall-Run Chino	ok					
Central Valley Steelhead						
	Histori	c Anadromous Reach?	•			
Has the stream reach upstream of the c	rossing supported an anadi	romous fish population?				
Source						
		Crossing Type				
Crossing Type Culvert		ID				
General Description: Projecting corrug	ated steel pipe culvert.					
		Photos				
3.1 Upstream Looking Upstream - Photo	o I 3.1_BUT_99	_42.80_UU				
3.2 Upstream Looking Downstream - P	hoto I 3.2_BUT_99	_42.80_UD				
3.3 Downstream Looking Upstream - P	hoto ID 3.3_BUT_99	_42.80_DU				
3.4 Downstream Looking Downstream	- Photo ID 3.4_BUT_99	_42.80_DD				
	Detaile	d Survey Required	d?			
Detailed Survey Required?:	No					
Report Date 03-15-2016						

County: Butte Route: 99 Postmile: 42.80 Survey Date: 02/02/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONN	IAISSANCE SURVEY INFORMAT	ION
County: BUT	Route: 99	PM: 42.90
	Survey Information	
Date 2/2/2016 Time 8	01 Agency Performing Survey	HDR
Data Recorder ST, NO (24 hr	. clock) Survey Team ST, NO	
	Site Information	
	GPS Data	
Longitude -121.945325 Latitu	ide 39.845387	
GPS HDOP 1 Loc.	of GPS Point above outlet	PM
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Red Bluff HA	Quad Name (7.5') NORD	
USGS Hydrologic Unit SACRAMENTO-LOWER	R_THOMES CalWater Unit HA Red Bluff	
CalWater Unit HU TEHAMA	CalWater Unit HSA Red Bluff	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	Yes	
Is the primary function for storm water runoff or road		
•		
Is the waterway a concrete-lined flood control chann		
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fee	et? Yes	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)	
Central Valley Spring-Run Chinook	=	
Central Valley Fall_Late Fall-Run Chinook	\dashv	
Central Valley Steelhead	Historia Anadramaus Passis 2	
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing sup	ported an anadromous fish population?	
Source	Crossing Type	
Outside Trace Outside		
Constal Possistion: Three corrugated steel pipe of	IDulverts and two concrete box culverts in a concrete form.	
General Description: Triffee corrugated steel pipe C		
2.1 Unstroom Looking Unstroom Photo I	Photos	
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_42.90_UU	
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_42.90_UD	
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_42.90_DU	
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_42.90_DD	
	Detailed Survey Required?	
Detailed Survey Required?: Yes	J	
Report Date 03-15-2016		

10port Bate 00 10 2010

RECONNAISSANCE SURVEY INFORMATION Route: 99 County: BUT PM: 42.90 **Access Information** Land Ownership: Upstream private Owner(s) Downstream private Owner(s) Accessible from road? Upstream? Yes Limitations Fence Downstream? Yes Limitations **Vegetation Removal Required?** No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID Comments Maintenance Assistance Required? No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No Downstream? (If "Yes", comment and take photograph) Photo ID Comments **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVÉRT Is culvert diameter > 60"? Can you see all the way through the end of the culvert?

Report Date 03-15-2016

Can you feel a breeze through the culvert?

County: Butte Route: 99 Postmile: 42.90 Survey Date: 02/02/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



	RECONNAISS	ANCE SURVEY INFORM	IATION	
County: BUT		Route: 99		PM: 43.10
		Survey Information		
Date 2/1/2010	Time 16:00	Agency Performing Survey	HDR	
Data Recorder NO	(24 hr. clock)	Survey Team NO, ST		
		Site Information		
		GPS Data		
Longitude	-121.948065 Latitude	39.84832		
GPS HDOP	1 Loc. of GPS F	oint above outlet	PM	
		Hydrologic Information		
Stream Name un	known	Source:		
Basin	East Red Bluff HA	Quad Name (7.5') NORD		
USGS Hydrologic Unit	SACRAMENTO-LOWER_THOM	CalWater Unit HA Red Blu	uff	
CalWater Unit HU	TEHAMA	CalWater Unit HSA Red Blu	uff	
		Natural Stream Channel?		
Is there a definable chanr	el upstream of culvert?	No		
	storm water runoff or road drainag	e?: Yes		
	e-lined flood control channel?	No		
is the waterway a concret				
		otential Fish Bearing Stream?		
Does the site contain an	ctive channel width >2 feet?	No		
Is the stream gradient < 2	0%?	Yes		
		Salmonid ESU/DPS		
	Salmon) or DPS (Steelhead)			
Central Valley Spring-Rui				
Central Valley Fall_Late F	all-KUN UNINOOK			
Central Valley Steelhead		istoric Anadromous Reach?		
Llog the atroppe as at a second				
•	tream of the crossing supported ar	anauromous iisn population?		
Source		Crossing Type		
Crossing Type Cu	vert	ID		
·	o corrugated steel pipe culverts wit			1
		Photos		
3.1 Upstream Looking Up	stream - Photo I 3.1 RI	JT_99_43.31_UU		
3.2 Upstream Looking Do		JT_99_43.31_UD		
3.3 Downstream Looking		JT_99_43.31_DU		
3.4 Downstream Looking		JT_99_43.31_DD		
		etailed Survey Required?		
Detailed Survey Required		Tames our roy Hoquirou i		

County: Butte Route: 99 Postmile: 43.10 Survey Date: 02/01/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION								
County:	BUT		Ro	ute: 99			PM:	43.33
			Sur	rvey Information				
Date	2/1/2016	Time	15:30	Agency Performi	ing Survey	HDR		
Data Recorder	NO		(24 hr. clock)	Survey Team	NO, ST			
			S	ite Information				
				GPS Data				
Longitude		-121.950904	Latitude	39.85242]			
GPS HDOP		0.1	Loc. of GPS Point	above outlet		PM		
			Нус	Irologic Information				
Stream Name	un	known			Source:			
Basin		East Red Bluff HA	Λ	Quad Name (7.5')	NORD			
USGS Hydrolo	ogic Unit	SACRAMENTO-L		CalWater Unit HA	Red Bluff			
CalWater Unit	_	TEHAMA		CalWater Unit HSA	Red Bluff			
			Natı	ural Stream Channel?				
Is there a defir	nable chann	el upstream of culv		Yes				
		storm water runoff		No				
		e-lined flood control	_	No	=			
le tile materina	.,			ial Fish Bearing Strea	m?			
Door the et	oontele	othus shares to the						
		nctive channel width	1 >∠ 1001 /	Yes	\exists			
Is the stream (yraulent < 2	U70 f						
ESII (Chinack	and Coho	Salmon) or DPS (S		Salmonid ESU/DPS				
Central Valley			neau)					
		all-Run Chinook						
Central Valley								
			Histori	c Anadromous Reach	1?			
Has the stream	n reach ups	tream of the crossir	ng supported an anad	romous fish population	?			
Source	,			, ,				
				Crossing Type				
Crossing	g Type Cul	vert		ID				
General Descr	ription: Two	corrugated steel p	ipe culverts, with end	sections.				
				Photos				
3.1 Upstream	Looking Up	stream - Photo I	3.1_BUT_99					
3.2 Upstream	Looking Do	wnstream - Photo I	3.2_BUT_99	_43.33_UD				
3.3 Downstrea	am Looking	Upstream - Photo I	D 3.3_BUT_99	_43.33_DU				
3.4 Downstream	am Looking	Downstream - Pho	to ID 3.4_BUT_99	0_43.33_DD				
			Detaile	ed Survey Require	ed?			
Detailed Surve	ey Required	?: Yes						

RECONNAISSANCE SURVEY INFORMATION Route: 99 County: BUT PM: 43.33 **Access Information** Land Ownership: Upstream private Owner(s) Downstream private Owner(s) Accessible from road? Upstream? Yes Limitations Downstream? Yes Limitations **Vegetation Removal Required?** No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID Comments Maintenance Assistance Required? No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No Downstream? (If "Yes", comment and take photograph) Photo ID Comments **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVÉRT Is culvert diameter > 60"?

Report Date 03-15-2016

Can you see all the way through the end of the culvert?

Can you feel a breeze through the culvert?

County: Butte Route: 99 Postmile: 43.33 Survey Date: 02/01/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



	RECONNAISSANCE SURVEY INFOR	RMATION
County: BUT	Route: 99	PM: 43.40
	Survey Information	
Date 2/1/2016	Time 13:30 Agency Performing Surve	ey HDR
Data Recorder NO	(24 hr. clock) Survey Team NO, ST	
	Site Information	
	GPS Data	
Longitude	-121.96426 Latitude 39.867562	
GPS HDOP	0.1 Loc. of GPS Point above outlet	PM
	Hydrologic Information	
Stream Name unknow	n Source:	
Basin	st Red Bluff HA Quad Name (7.5') NO	RD
USGS Hydrologic Unit SA	CRAMENTO-LOWER_THOMES CalWater Unit HA Rec	d Bluff
CalWater Unit HU TE	HAMA CalWater Unit HSA Rec	Bluff
	Natural Stream Channel?	
Is there a definable channel up		
	n water runoff or road drainage?: Yes	
Is the waterway a concrete-line		
	Potential Fish Bearing Stream?	
Does the site contain an active	channel width >2 feet?	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Saln	· · · · · · · · · · · · · · · · · · ·	
Central Valley Spring-Run Chi		
Central Valley Fall_Late Fall-R	un Chinook	
Central Valley Steelhead		
	Historic Anadromous Reach?	
·	n of the crossing supported an anadromous fish population?	
Source		
	Crossing Type	
Crossing Type Culvert	ID	
General Description: corrugat		
	Photos	
3.1 Upstream Looking Upstream		
3.2 Upstream Looking Downs		
3.3 Downstream Looking Ups		
3.4 Downstream Looking Dow	rnstream - Photo ID 3.4_BUT_99_43.4_DD	
	Detailed Survey Required?	
Detailed Survey Required?:	No	
Report Date 03-15-2016		

County: Butte Route: 99 Postmile: 43.40 Survey Date: 02/01/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECON	NAISSANCE SURVEY INFORMATION	N
County: BUT	Route: 99	PM: 43.64
	Survey Information	
Date 2/1/2016 Time 15	5:14 Agency Performing Survey	HDR
Data Recorder NO (24 h	r. clock) Survey Team NO, ST	
	Site Information	
	GPS Data	
Longitude -121.953034 Latit	ude 39.855429	
GPS HDOP 0.1 Loc.	of GPS Point above outlet	PM
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Red Bluff HA	Quad Name (7.5') NORD	
USGS Hydrologic Unit SACRAMENTO-LOWEI		
CalWater Unit HU TEHAMA	CalWater Unit HSA Red Bluff	
	Natural Stream Channel?	•
Is there a definable channel upstream of culvert?	Yes	
Is the primary function for storm water runoff or road		
Is the waterway a concrete-lined flood control chan		
is the waterway a concrete-lined hood control charm		
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fe		
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelh	ead) Historic Anadromous Reach?	
Lieu the etreem reach unstrange of the engineering		
Has the stream reach upstream of the crossing sup Source	ported an anadromous fish population? Unknown	_
Source	Crossing Type	
Crossing Type Culvert	ID	
<u></u>	ox and one concrete pipe (elliptical) in a concrete form.	1
	Photos	
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_43.64_UU	
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_43.64_UD	
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_43.64_DU	
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_43.64_DD	<u>.</u>
	Detailed Survey Required?	
Detailed Survey Required?:		

RECONNAISSANCE SURVEY INFORMATION Route: 99 County: BUT PM: 43.64 **Access Information** Land Ownership: Upstream private Owner(s) Downstream private Owner(s) Accessible from road? Upstream? Yes Limitations Must cross over a fence to proceed upstream. Downstream? Yes Limitations **Vegetation Removal Required?** No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID Comments Maintenance Assistance Required? No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No Downstream? (If "Yes", comment and take photograph) Photo ID Comments **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVÉRT Is culvert diameter > 60"? Can you see all the way through the end of the culvert?

Report Date 03-15-2016

Can you feel a breeze through the culvert?

County: Butte Route: 99 Postmile: 43.64 Survey Date: 02/01/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONN	AISSANCE SURVEY INFORMATION	
County: BUT	Route: 99	PM: 43.80
	Survey Information	
Date 2/1/2016 Time 14	45 Agency Performing Survey	HDR
Data Recorder NO (24 hr.	clock) Survey Team NO, ST	
	Site Information	
	GPS Data	
Longitude -121.955103 Latitu	de 39.858251	
GPS HDOP 0.1 Loc. o	of GPS Point above outlet	PM
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Red Bluff HA	Quad Name (7.5') NORD	
USGS Hydrologic Unit SACRAMENTO-LOWER	_THOMES	
CalWater Unit HU TEHAMA	CalWater Unit HSA Red Bluff	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	No No	
Is the primary function for storm water runoff or road	drainage?· Yes	
Is the waterway a concrete-lined flood control chann		
is the waterway a concrete-lined flood control chann		
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fee	t? No	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing supp	orted an anadromous fish population?	
Source	One calma Torre	
	Crossing Type	
Crossing Type Culvert	ID	
General Description: concrete box culvert	Photos	
OA Hastroom Localism II. (1997)	Photos	
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_43.8_UU	
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_43.8_UD	
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_43.8_DU	
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_43.8_DD	
	Detailed Survey Required?	
Detailed Survey Required?: No	_	

County: Butte Route: 99 Postmile: 43.80 Survey Date: 02/01/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONN	AISSANCE SURVEY INFORMATIO	N
County: BUT	Route: 99	PM: 44.30
	Survey Information	
Date 2/1/2016 Time 14:	OO Agency Performing Survey	HDR
Data Recorder NO (24 hr.	clock) Survey Team NO, ST	
	Site Information	
	GPS Data	
Longitude -121.960074 Latitude	de 39.863318	
GPS HDOP 0.1 Loc. of	of GPS Point above outlet	PM
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Red Bluff HA	Quad Name (7.5') NORD	
USGS Hydrologic Unit SACRAMENTO-LOWER	` '	
CalWater Unit HU TEHAMA	CalWater Unit HSA Red Bluff	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	No No	
Is the primary function for storm water runoff or road	drainage?: No	
	a.aago	
Is the waterway a concrete-lined flood control channel		
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fee	t? No	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing supp	orted an anadromous fish population? Unknown	1
Source	Crossing Type	
Crossing Type Culvert General Description: Concrete box culvert.	ID	
General Description.	Dhatas	
2.4 Upotroom Looking Heatreen. Phate L	Photos	
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_44.30	
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_44.30	
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_44.30	
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_44.30	
	Detailed Survey Required?	
Detailed Survey Required?: No	J	

County: Butte Route: 99 Postmile: 44.30 Survey Date: 02/01/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



R	ECONNAISSANC	E SURVEY	INFORMATI	ION	
County: BUT	Rou	te: 99			PM: 44.90
	Surv	ey Information			
Date 2/1/2016 T	me 13:00	Agency Perform	ing Survey	HDR	
Data Recorder NO	(24 hr. clock)	Survey Team	NO, ST		
	Site	e Information			
		GPS Data			
Longitude -121.96	6892 Latitude	39.820362	2		
GPS HDOP	0.1 Loc. of GPS Point	above outlet		PM	
	Hydro	ologic Information			
Stream Name unknown			Source:		
Basin East Red B	luff HA	Quad Name (7.5')	RICHARDSO	N SPRINGS NW	
		CalWater Unit HA	Red Bluff		
CalWater Unit HU TEHAMA		CalWater Unit HSA	Red Bluff		
	Natur	al Stream Channel?	•		
Is there a definable channel upstream		Yes			
•			<u></u>		
Is the primary function for storm water	_	No			
Is the waterway a concrete-lined flood	control channel?	No			
	Potential	Fish Bearing Strea	ım?		
Does the site contain an active channel	el width >2 feet?	Yes			
Is the stream gradient < 20%?		Yes			
	Sal	Imonid ESU/DPS			
ESU (Chinook and Coho Salmon) or	OPS (Steelhead)				
Central Valley Spring-Run Chinook					
	Historic	Anadromous Reacl	h?		
Has the stream reach upstream of the	crossing supported an anadro	mous fish population	n? Unkno	own	
Source					
	(Crossing Type			
Crossing Type Culvert		ID			
General Description: Double concrete	box culvert.				
		Photos			
3.1 Upstream Looking Upstream - Pho	oto I 3.1_BUT_99_4	43.63_UU			
3.2 Upstream Looking Downstream - F	Photo I 3.2_BUT_99_4	43.63_UD			
3.3 Downstream Looking Upstream - F	Photo ID 3.3_BUT_99_4	43.63_DU			
3.4 Downstream Looking Downstream	- Photo ID 3.4_BUT_99_	43.63_DD			
	Detailed	Survey Requir	ed?		
Detailed Survey Required?:	Yes				

RECONNAISSANCE SURVEY INFORMATION Route: 99 County: BUT PM: 44.90 **Access Information** Land Ownership: Upstream private Owner(s) Downstream private Owner(s) Accessible from road? Upstream? Yes Limitations Downstream? Yes Limitations **Vegetation Removal Required?** No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID Comments Maintenance Assistance Required? No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No Downstream? (If "Yes", comment and take photograph) Photo ID Comments **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVÉRT Is culvert diameter > 60"? Yes Can you see all the way through the end of the culvert? Yes

Yes

Report Date 03-15-2016

Can you feel a breeze through the culvert?

County: Butte Route: 99 Postmile: 44.90 Survey Date: 02/01/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION				
County: BUT	Route: 99	PM: 44.92		
Survey Information				
Date 2/1/2016 Time 12	:40 Agency Performing Survey HDR			
Data Recorder NO (24 hr	. clock) Survey Team NO, ST			
	Site Information			
	GPS Data			
Longitude -121.969489 Latitu	de 39.875964			
GPS HDOP 0.1 Loc.	of GPS Point above outlet P!	М		
	Hydrologic Information			
Stream Name unknown	Source:			
Basin East Red Bluff HA	Quad Name (7.5') RICHARDSON SPRINGS NV	N		
USGS Hydrologic Unit SACRAMENTO-LOWER				
CalWater Unit HU TEHAMA	CalWater Unit HSA Red Bluff			
	Natural Stream Channel?			
Is there a definable channel upstream of culvert?	No No			
Is the primary function for storm water runoff or road				
Is the waterway a concrete-lined flood control chann				
	Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 fee	et? No			
Is the stream gradient < 20%?	Yes			
	Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)			
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead				
	Historic Anadromous Reach?			
Has the stream reach upstream of the crossing supp	ported an anadromous fish population? Unknown			
Source				
Crossing Type				
Crossing Type Culvert	ID			
General Description: double concrete box				
	Photos			
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_44.92_UU			
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_44.92_UD			
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_44.92_DU			
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_44.92_DD			
Detailed Survey Required?				
Detailed Survey Required?: No				

County: Butte Route: 99 Postmile: 44.92 Survey Date: 02/01/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION				
County: BUT	Route: 99	PM: 45.50		
Survey Information				
Date 2/1/2016 Time	12:20 Agency Performing Survey H	IDR		
Data Recorder NO	(24 hr. clock) Survey Team NO, ST			
	Site Information			
	GPS Data			
Longitude -121.971135	Latitude 39.878904			
GPS HDOP 0.1	Loc. of GPS Point above outlet	PM		
	Hydrologic Information			
Stream Name Pine Creek	Source: sign at site			
Basin East Red Bluff HA	Quad Name (7.5') RICHARDSON SPRING	SS NW		
USGS Hydrologic Unit SACRAMENTO-LC	` '			
CalWater Unit HU TEHAMA	CalWater Unit HSA Red Bluff			
	Natural Stream Channel?			
Is there a definable channel upstream of culver				
Is the primary function for storm water runoff or				
Is the waterway a concrete-lined flood control of	channel? No			
	Potential Fish Bearing Stream?			
Does the site contain an active channel width	>2 feet? Yes			
Is the stream gradient < 20%?	Yes			
	Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (St	eelhead)			
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead				
	Historic Anadromous Reach?			
Has the stream reach upstream of the crossing	supported an anadromous fish population?			
Source CV Spring-run 5-Year Status R				
	Crossing Type			
Crossing Type bridge w/o potential pass	sage constraints ID 12-0028			
General Description: Multiple bay bridge.				
Photos				
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_45.50_UU			
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_45.50_UD			
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_45.50_DU			
3.4 Downstream Looking Downstream - Photo	DID 3.4_BUT_99_45.50_DD			
Detailed Survey Required?				
Detailed Survey Required?: No				
Report Date 03-15-2016				

County: Butte Route: 99 Postmile: 45.50 Survey Date: 02/01/2016

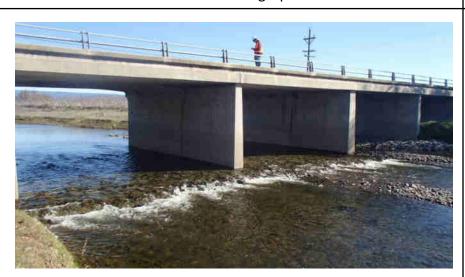
Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION				
County: BUT	Route: 99	PM: 45.72		
Survey Information				
Date 2/1/2016	Time 12:00 Agency Performing Survey HDR			
Data Recorder NO	(24 hr. clock) Survey Team NO, ST			
	Site Information			
	GPS Data			
Longitude	-121.973005 Latitude 39.880657			
GPS HDOP	Loc. of GPS Point above outlet PM			
	Hydrologic Information			
Stream Name Ca	ampbell Creek Source: sign at site			
Basin	East Red Bluff HA Quad Name (7.5") RICHARDSON SPRINGS NW	\neg		
USGS Hydrologic Unit	SACRAMENTO-LOWER_THOMES	<u> </u>		
CalWater Unit HU	TEHAMA CalWater Unit HSA Red Bluff			
	Natural Stream Channel?			
Is there a definable chann				
	storm water runoff or road drainage?: Yes			
is the waterway a concrete				
	Potential Fish Bearing Stream?			
Does the site contain an a	active channel width >2 feet? Yes			
Is the stream gradient < 2	0%? Yes			
	Salmonid ESU/DPS			
ESU (Chinook and Coho	Salmon) or DPS (Steelhead)			
Central Valley Spring-Run	n Chinook			
Central Valley Fall_Late F	Fall-Run Chinook			
Central Valley Steelhead				
	Historic Anadromous Reach?			
Has the stream reach upsi	tream of the crossing supported an anadromous fish population?			
Source No connec	ction to known anadromous streams			
	Crossing Type			
o ,,	dge w/o potential passage constraints ID 12.0029			
General Description: Dou	uble concrete box culvert			
	Photos			
3.1 Upstream Looking Up	ostream - Photo I 3.1_BUT_99_45.72_UU			
3.2 Upstream Looking Do	ownstream - Photo I 3.2_BUT_99_45.72_UD			
3.3 Downstream Looking	Upstream - Photo ID 3.3_BUT_99_45.72_DU			
3.4 Downstream Looking	Downstream - Photo ID 3.4_BUT_99_45.72_DD			
Detailed Survey Required?				
Detailed Survey Required	1?: No			
Report Date 03-15-2016	6			

report Date to 10 2010

County: Butte Route: 99 Postmile: 45.72 Survey Date: 02/01/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



	RECONNAISSANC	E SURVEY INFORMAT	ION
County: BUT	Rout	e: 99	PM: 45.80
	Surve	y Information	
Date 2/1/2016	Time 11:49	Agency Performing Survey	HDR
Data Recorder NO	(24 hr. clock)	Survey Team NO, ST	
	Site	Information	
		GPS Data	
Longitude -	121.974982 Latitude	39.882547	
GPS HDOP	1 Loc. of GPS Point	above inlet	PM
	Hydro	logic Information	
Stream Name unknow	1	Source:	
Basin Eas	t Red Bluff HA C	uad Name (7.5') RICHARDS	ON SPRINGS NW
		alWater Unit HA Red Bluff	
, ,		alWater Unit HSA Red Bluff	
		I Stream Channel?	
Is there a definable channel ups		No No	
		Yes	
	water runoff or road drainage?:		
Is the waterway a concrete-line		No	
	Potential	Fish Bearing Stream?	
Does the site contain an active	channel width >2 feet?	Yes	
Is the stream gradient < 20%?		Yes	
	Salı	monid ESU/DPS	
ESU (Chinook and Coho Salm	on) or DPS (Steelhead)		
Central Valley Spring-Run Chin			
Central Valley Fall_Late Fall-Ru	un Chinook		
Central Valley Steelhead			
	Historic A	Anadromous Reach?	
Has the stream reach upstream	of the crossing supported an anadron	nous fish population?	0
Source			
	C	rossing Type	
Crossing Type Culvert		ID	
General Description: Quadrup	e concrete box culvert.		
		Photos	
3.1 Upstream Looking Upstrea	m - Photo I 3.1_BUT_99_4	5.80_UU	
3.2 Upstream Looking Downstr	ream - Photo I 3.2_BUT_99_4	5.80_UD	
3.3 Downstream Looking Upstr	eam - Photo ID 3.3_BUT_99_4	5.80_DU	
3.4 Downstream Looking Down	nstream - Photo ID 3.4_BUT_99_4	5.80_DD	
	Detailed	Survey Required?	
Detailed Survey Required?:	No		

County: Butte Route: 99 Postmile: 45.80 Survey Date: 02/01/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



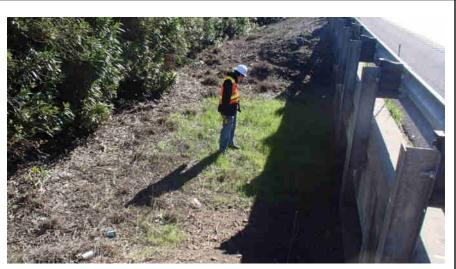
Downstream Looking Downstream



RECONN	AISSANCE SURVEY INFORMATION	
County: BUT	Route: 99	PM: 45.93
	Survey Information	
Date 2/1/2016 Time 11	00 Agency Performing Survey HDR	
Data Recorder NO (24 hr.	clock) Survey Team NO, ST	
	Site Information	
	GPS Data	
Longitude -121.975736 Latitu	de 39.882908	
GPS HDOP 0.1 Loc. of	of GPS Point above outlet PM	
	Hydrologic Information	
Stream Name unknown	Source:	
Basin East Red Bluff HA	Quad Name (7.5') RICHARDSON SPRINGS NW	
USGS Hydrologic Unit SACRAMENTO-LOWER	THOMES	
CalWater Unit HU TEHAMA	CalWater Unit HSA Red Bluff	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	No No	
·		
Is the primary function for storm water runoff or road		
Is the waterway a concrete-lined flood control chann	el? No	
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fee	t? Yes	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing supp	orted an anadromous fish population?	
Source		
	Crossing Type	
Crossing Type Culvert	ID	
General Description: quadruple concrete box culve	t	
	Photos	
3.1 Upstream Looking Upstream - Photo I	3.1_BUT_99_45.93_upstream looking upstream_020116	
3.2 Upstream Looking Downstream - Photo I	3.2_BUT_99_45.93_upstream looking downstream_020116	
3.3 Downstream Looking Upstream - Photo ID	3.3_BUT_99_45.93_downstream looking downstream_020116	
3.4 Downstream Looking Downstream - Photo ID	3.4_BUT_99_45.93_downstream looking upstream_020116	
	Detailed Survey Required?	
Detailed Survey Required?: No		
Report Date 03-15-2016		

County: Butte Route: 99 Postmile: 45.93 Survey Date: 02/01/2016

Upstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Upstream



Downstream Looking Downstream



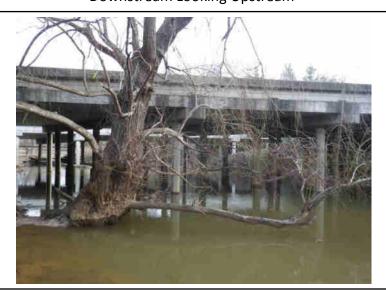
		RECC	NNAISSAN	CE SURVEY	INFORM	ATION			
County: S	SAC		Ro	ute: 99				PM:	0.13
			Sur	vey Information					
Date 2	2/2/2016	Time	9:00	Agency Perform	ning Survey	I	HDR		
Data Recorder	JV		(24 hr. clock)	Survey Team	JV, MA				
			Si	ite Information					
				GPS Data					
Longitude		-121.28819356	Latitude	38.2459270	8				
GPS HDOP		1.6	Loc. of GPS Point	above inlet			PM		
			Нус	drologic Information					
Stream Name	Nor	th Channel Dry Cre	eek		Source:	CT Bridge lo	g		
Basin	ĺ	Lower Mokelumne		Quad Name (7.5')	LODI N	ORTH			
USGS Hydrologi	ic Unit	LOWER_COSUM		CalWater Unit HA	Lower N	Mokelumne			
CalWater Unit H		LOWER_MOKELU NORTH VALLEY F		CalWater Unit HSA	Lower	/lokelumne			
Caivvaler Unit H	U	INONTH VALLET F		•		NORGIUIIIIE			
			Natu	ural Stream Channel	?				
Is there a definal	ble channe	el upstream of culve	ert?	Yes					
Is the primary fur	nction for s	storm water runoff o	or road drainage?:	No					
Is the waterway a	a concrete	-lined flood control	channel?	No					
			Potent	ial Fish Bearing Stre	am?				
Does the site co	ntain an ac	ctive channel width	>2 feet?	Yes					
Is the stream gra	adient < 20)%?		Yes					
			S	Salmonid ESU/DPS					
ESU (Chinook ar	nd Coho S	Salmon) or DPS (S	teelhead)						
Central Valley Sp	pring-Run	Chinook							
Central Valley Fa	all_Late Fa	all-Run Chinook							
Central Valley St	teelhead								
			Histori	c Anadromous Read	h?				
_				romous fish populatio	n?	Jnknown			
Source	Tributary to	Mokelumne River							
				Crossing Type					
J	··	ge w/o potential pas		ID 240030					
General Descript	tion: Sepa	arate bridges for no	orth and south moving	g traffic					
				Photos					
3.1 Upstream Lo	ooking Ups	stream - Photo I	SAC_99_0.1	3_3.1_2-02-2016					
3.2 Upstream Lo	ooking Dov	wnstream - Photo I	SAC_99_0.1	3_3.2_2-02-2016					
	_	Jpstream - Photo II		3_3.3_2-02-2016					
3.4 Downstream	n Looking I	Downstream - Phot	o ID SAC_99_0.1	3_3.4_2-02-2016		-			
			Detaile	d Survey Requi	red?				
Detailed Survey	Required?	P: No							

County: Sacramento Route: 99 Postmile: 0.13 Survey Date: 02/02/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION County: SAC Route: 99 PM: 2.36 Survey Information Date 2/2/2016 Time 9:40 Agency Performing Survey HDR Data Recorder JV (24 hr. clock) Survey Team JV, MA Site Information GPS Data Longitude -121.30461715 Latitude 38.27535142
Date 2/2/2016 Time 9:40 Agency Performing Survey HDR Data Recorder JV (24 hr. clock) Survey Team JV, MA Site Information GPS Data
Date 2/2/2016 Time 9:40 Agency Performing Survey HDR Data Recorder JV (24 hr. clock) Survey Team JV, MA Site Information GPS Data
Site Information GPS Data
GPS Data
Longitude -121.30461715 Latitude 38.27535142
GPS HDOP 2.1 Loc. of GPS Point above outlet PM
Hydrologic Information
Stream Name Log Cabin Creek Source:
Basin Herald Quad Name (7.5') GALT
USGS Hydrologic Unit LOWER_COSUMNES- CalWater Unit HA Lower Cosumnes-Dry
LOWER_MOKELUMNE CalWater Unit HU NORTH VALLEY FLOOR CalWater Unit HSA Herald
Natural Stream Channel?
Is there a definable channel upstream of culvert?
Is the primary function for storm water runoff or road drainage?:
Is the waterway a concrete-lined flood control channel?
Potential Fish Bearing Stream?
Does the site contain an active channel width >2 feet?
Is the stream gradient < 20%?
Salmonid ESU/DPS
ESU (Chinook and Coho Salmon) or DPS (Steelhead)
Central Valley Spring-Run Chinook
Central Valley Fall_Late Fall-Run Chinook
Central Valley Steelhead
Historic Anadromous Reach?
Has the stream reach upstream of the crossing supported an anadromous fish population? Unknown
Source Tributary to Cosumnes River. Inlet and Outlet on frontage roads - no Caltrans culverts.
Crossing Type
Crossing Type Culvert ID General Description: concrete double box culvert; bordered by Stockton Blvd. on both east and west sides of the highway
Photos
3.1 Upstream Looking Upstream - Photo I SAC_99_2.36_3.1_2-02-2016 3.2 Upstream Looking Downstream - Photo I SAC_99_2.36_3.2_2-02-2016
3.3 Downstream Looking Upstream - Photo ID SAC_99_2.36_3.2_2-02-2016 SAC_99_2.36_3.3_2-02-2016
3.4 Downstream Looking Downstream - Photo ID SAC_99_2.36_3.4_2-02-2016 SAC_99_2.36_3.4_2-02-2016
Detailed Survey Required? Detailed Survey Required?

County: Sacramento Route: 99 Postmile: 2.36 Survey Date: 02/02/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECON	INAISSANC	E SURVEY I	NFORMA	TION	
County: SAC		ite: 99	. II JAMA		PM: 3.90
	Surv	vey Information			
Date 2/2/2016 Time	10:40	Agency Performi	ing Survey	HDR	
Data Recorder JV (24	4 hr. clock)	Survey Team	JV, MA		
	Sit	e Information			
		GPS Data			
Longitude -121.314665 Lat	atitude	38.295976			
GPS HDOP 2.52 Lo	oc. of GPS Point	above outlet		PM	
	Hydr	ologic Information			
Stream Name Skunk Creek			Source:	other	
Basin Herald		Quad Name (7.5')	GALT		
USGS Hydrologic Unit LOWER_COSUMNES		CalWater Unit HA	Lower Cos	sumnes-Dry	
CalWater Unit HU LOWER_MOKELUMN NORTH VALLEY FLO		CalWater Unit HSA	Herald		
Caivvatei Oliit IIO INOK I II VALLEY FLO			·		
		al Stream Channel?			
Is there a definable channel upstream of culvert?	•	Yes			
Is the primary function for storm water runoff or ro	oad drainage?:	No			
Is the waterway a concrete-lined flood control cha	annel?	No			
	Potentia	ll Fish Bearing Strea	ım?		
Does the site contain an active channel width >2	feet?	Yes			
Is the stream gradient < 20%?		Yes			
	Sa	Imonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steel	elhead)				
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chinook					
Central Valley Steelhead					
		Anadromous Reach			
Has the stream reach upstream of the crossing su				known	-
Source Tributary to Cosumnes River, His			onids in the Cent	trai Valley (NOAA 2005	<u> </u>
On the Tara Colored	1	Crossing Type			
Crossing Type Culvert General Description: triple concrete pipe culvert;	no postmile marko	ID er present			
General Description. Triple concrete pipe curvert,	, no positilie marke	Photos			
3.1 Upstream Looking Upstream - Photo I	SVC 00 3 00	_3.1_2-02-2016			7
3.2 Upstream Looking Downstream - Photo I		_3.1_2-02-2016			<u>_</u> T
3.3 Downstream Looking Upstream - Photo ID		_3.3_2-02-2016			<u>-</u> 1
3.4 Downstream Looking Downstream - Photo ID)_3.4_2-02-2016			<u>.</u>
		Survey Require	ed?		_
Detailed Survey Required?: Yes	Joianea	. Jan 10, Roquin			

RECONNAISSANCE SURVEY INFORMATION County: SAC Route: 99 PM: 3.90 **Access Information** Land Ownership: Upstream private Owner(s) Downstream private Owner(s) Accessible from road? Upstream? Limitations access via frintage road (East Stockton Blvd) Downstream? No Limitations access via frontage road (West Stockton Blvd) **Vegetation Removal Required?** Upstream? No (If "Yes", comment and take photograph) Photo ID Comments Unknown (If "Yes", comment and take photograph) Downstream? Photo ID SAC_99_3.90_3.4 2-02-2016 Maintenance Assistance Required? No Upstream? (If "Yes", comment and take photograph) Photo ID Comments No Downstream? (If "Yes", comment and take photograph) Photo ID **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVERT Is culvert diameter > 60"?

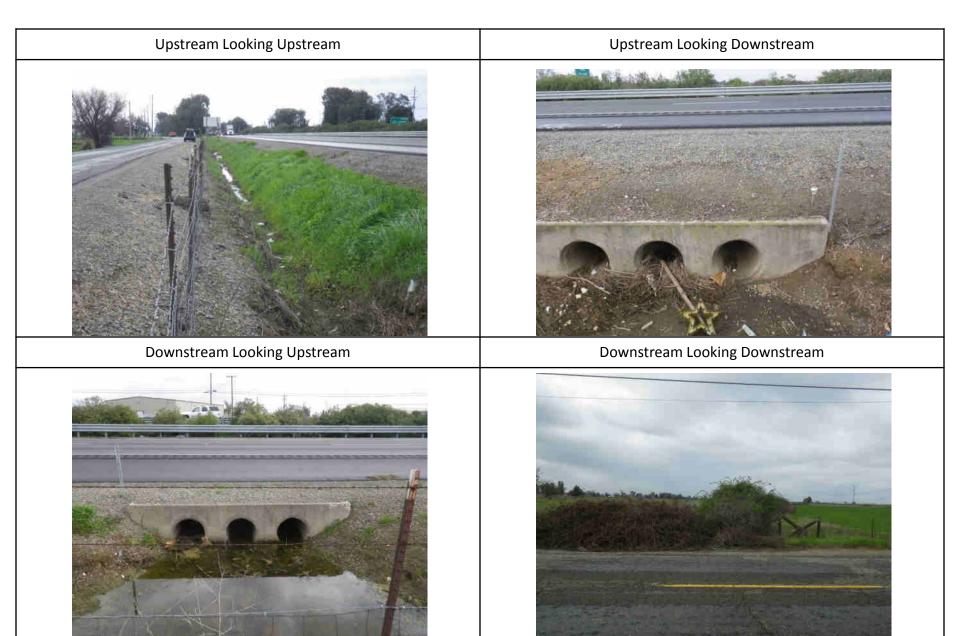
Unknown No

Report Date 03-15-2016

Can you see all the way through the end of the culvert?

Can you feel a breeze through the culvert?

County: Sacramento Route: 99 Postmile: 3.90 Survey Date: 02/02/2016



RECONN	AISSANCE SURVEY INFORMATION	
County: SAC	Route: 99	PM: 4.60
	Survey Information	
Date 2/2/2016 Time 10	:20 Agency Performing Survey HDR	
Data Recorder JV (24 hr.	. clock) Survey Team JV, MA	
	Site Information	
	GPS Data	
Longitude -121.31943193 Latitu	de 38.30551956	
GPS HDOP 1.92 Loc. 0	of GPS Point above outlet PM	
	Hydrologic Information	
Stream Name Skunk Creek	Source: CT Bridge log	
Basin Herald	Quad Name (7.5') GALT	
USGS Hydrologic Unit LOWER_COSUMNES-	CalWater Unit HA Lower Cosumnes-Dry	
LOWER_MOKELUMNE CalWater Unit HU NORTH VALLEY FLOOR	CalWater Unit HSA Herald	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	No	
Is the primary function for storm water runoff or road	drainage?: Yes	
Is the waterway a concrete-lined flood control chann		
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fee	et? No	
Is the stream gradient < 20%?	yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing supp	ported an anadromous fish population? Unknown	_
Source Tributary to Cosumnes River, Histor	ical and Current dist. Of Pacific Salmonids in the Central Valley (NOAA 2005)	
	Crossing Type	
Crossing Type Culvert	ID	
General Description: Concrete pipe cuvert. The cha	annel upstrream of culvert no longer connects to the culvert due to agricultura	I land use.
	Photos	
3.1 Upstream Looking Upstream - Photo I	SAC_99_4.60_3.1_2-02-2016	I
3.2 Upstream Looking Downstream - Photo I	SAC_99_4.60_3.2_2-02-2016	I
3.3 Downstream Looking Upstream - Photo ID	SAC_99_4.60_3.3_2-02-2016	I
3.4 Downstream Looking Downstream - Photo ID	SAC_99_4.60_3.4_2-02-2016]
	Detailed Survey Required?	
Detailed Survey Required?: No		

County: Sacramento Route: 99 Postmile: 4.60 Survey Date: 02/02/2016



RECONNAISSANCE SURVEY INFORMATION							
County: SAC			ute: 99			PM:	4.91
		Sur	vey Information				
Date 2/2/201	6 Time 1	2:30	Agency Perform	ning Survey	HDR		
Data Recorder JV	(24 h	nr. clock)	Survey Team	JV, MA		<u></u>	
		Si	te Information				
			GPS Data				
Longitude	-121.320707 Lati	tude	38.30997	9			
GPS HDOP	2.24 Loc	. of GPS Point	above inlet		PM		
		Hyd	Irologic Information				_
Stream Name	outh Lagoon Creek			Source:	CT Bridge log		
Basin	Herald		Quad Name (7.5')	GALT			
USGS Hydrologic Unit	LOWER_COSUMNES-		CalWater Unit HA	Lower C	osumnes-Dry		
CollMotor Hait IIII	LOWER_MOKELUMNE		CallMotor Hait LCA	Herald			
CalWater Unit HU	NORTH VALLEY FLOO	JK	CalWater Unit HSA	Heraid			
		Natu	ıral Stream Channel	?			
Is there a definable chan	nel upstream of culvert?		Yes]			
Is the primary function fo	r storm water runoff or roa	ad drainage?:	No				
Is the waterway a concre	te-lined flood control char	nnel?	No				
		Potenti	al Fish Bearing Stre	am?			
Does the site contain an	active channel width >2 fe	eet?	Yes				
Is the stream gradient <	20%?		Yes				
		S	almonid ESU/DPS				
ESU (Chinook and Coho	Salmon) or DPS (Steell	nead)					
Central Valley Spring-Ru	n Chinook						
Central Valley Fall_Late	Fall-Run Chinook						
Central Valley Steelhead							
		Histori	c Anadromous Read	h?			
	stream of the crossing sup			-	Inknown		
Source Tributary	to Cosumnes River, Histo	orical and Currer		nonids in the Ce	ntral Valley (NOAA 2005)		
			Crossing Type				
· · · · =	dge w/o potential passage	-	ID 240028				
General Description: se	parate bridge for southboo	und and northboo					
			Photos				
3.1 Upstream Looking U			1_3.1_2-02-2016				
3.2 Upstream Looking D			1_3.2_2-02-2016				
3.3 Downstream Looking			1_3.3_2-02-2016			i Ī	
3.4 Downstream Lookin	g Downstream - Photo ID	SAC_99_4.9	1_3.4_2-02-2016				
		Detaile	d Survey Requi	red?			
Detailed Survey Require	d?: No						

County: Sacramento Route: 99 Postmile: 4.91 Survey Date: 02/02/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream

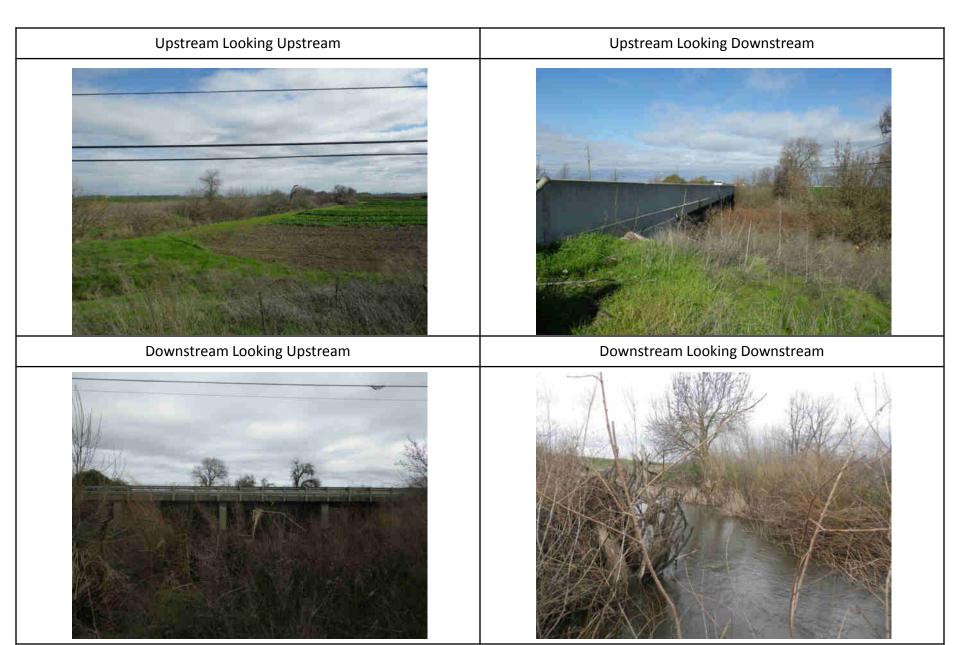


Downstream Looking Downstream



		RECO	NNAISSAN	CE SURVEY	INFORM	ATION		
County: S	AC			ute: 99			PM:	4.98
			Sur	rvey Information				
Date 2/2	2/2016	Time	12:30	Agency Perforn		HDR		
Data Recorder	JV		(24 hr. clock)	Survey Team	JV, MA			
			S	ite Information				
				GPS Data				
Longitude		-121.321075	Latitude	38.31080	2			
GPS HDOP		3.44	Loc. of GPS Point	above inlet		PM		
			Нус	drologic Information				
Stream Name	Lago	oon Creek			Source:	CT Bridge log		
Basin	ſ	Herald		Quad Name (7.5')	GALT			
USGS Hydrologic		LOWER_COSUM		CalWater Unit HA	Lower C	osumnes-Dry		
CalWater Unit HU		LOWER_MOKELL NORTH VALLEY F		CalWater Unit HSA	Herald			
Caivvalei Uliil HU	L	NONTH VALLET F		•				
				ural Stream Channel	?			
Is there a definable	e channe	I upstream of culve	ert?	Yes				
Is the primary fund	ction for s	torm water runoff o	or road drainage?:	No				
Is the waterway a	concrete-	lined flood control	channel?	No				
			Potent	ial Fish Bearing Stre	am?			
Does the site cont	tain an ac	tive channel width	>2 feet?	Yes				
Is the stream grad	dient < 20°	%?		Yes				
			S	Salmonid ESU/DPS				
ESU (Chinook and		, ,	teelhead)					
Central Valley Spr								
Central Valley Fall		II-Run Chinook						
Central Valley Ste	elhead							
				ic Anadromous Read				
			•	romous fish populatio		Jnknown		
Source Tr	ributary to	Cosumnes River,	Historical and Currer		nonids in the Ce	entral Valley (NOAA 2005)	
				Crossing Type				
		e w/o potential pas		ID 240045				
General Description	on: sepa	rate bridge for nort	thbouth and southbou					
0.4. Unatro !	alaba ar I I e	Annua District	040.00.10	Photos			7	
3.1 Upstream Loo	•			98_3.1_2-02-2016				
3.2 Upstream Loo	_			98_3.2_2-02-2016			I I	
	_	Jpstream - Photo II Downstream - Phot	-	98_3.3_2-02-2016 98_3.4_2-02-2016]]	
J.4 DOWNSHEAMIL	LOOKING L	JOWIISHEAM - FIIOL			- 10		<u></u>	
			Detaile	ed Survey Requi	red?			
Detailed Survey R	Required?	No						

County: Sacramento Route: 99 Postmile: 4.98 Survey Date: 02/02/2016



	RECON	NAISSAN(CE SURVEY	INFORMAT	ΓΙΟΝ		
County: SAC		Roi	ute: 99			PM:	5.06
		Sur	vey Information				
Date 2/2/2		2:30	Agency Perforr	ning Survey	HDR		
Data Recorder J	/ (24 h	r. clock)	Survey Team	JV, MA			
		Si	te Information				
	404.00407		GPS Data	<u></u>			
Longitude	-121.32167 Latin		38.31228	0			
GPS HDOP	3.91 Loc	of GPS Point	above inlet		PM		
	N	Hyd	rologic Information	_			
Stream Name	North Lagoon Creek			Source:	CT Bridge log		
Basin	Herald		Quad Name (7.5')	GALT			
USGS Hydrologic Unit	LOWER_COSUMNES- LOWER_MOKELUMNE		CalWater Unit HA	Lower Cost	umnes-Dry		
CalWater Unit HU	NORTH VALLEY FLOO		CalWater Unit HSA	Herald			
		Natu	ıral Stream Channel	?			
Is there a definable ch	annel upstream of culvert?		Yes				
Is the primary function	for storm water runoff or roa	d drainage?:	No				
Is the waterway a cond	rete-lined flood control chan	nel?	No				
		Potenti	al Fish Bearing Stre	am?			
Does the site contain	ın active channel width >2 fe	eet?	Yes				
Is the stream gradient			Yes				
		S	almonid ESU/DPS				
ESU (Chinook and Co	ho Salmon) or DPS (Steelh	nead)					
Central Valley Spring-							
Central Valley Fall_La							
Central Valley Steelhe	ad		a American				
			c Anadromous Rea				
	upstream of the crossing sup	•			nown		
Source Tributa	ry to Cosumnes River, Histo	oncai and Curren	Crossing Type	nonius in the Centr	ai valley (NOAA 2005)		
Crossing Type	oridge w/o potential passage	constraints	ID				
•	separate bridge for northbou	-					
	,		Photos				
3.1 Upstream Looking	Upstream - Photo I	SAC 99 5.00	6_3.1_2-02-2016		J		
3.2 Upstream Looking			6_3.2_2-02-2016				
	ing Upstream - Photo ID	-	6_3.3_2-02-2016				
3.4 Downstream Look	ing Downstream - Photo ID		6_3.4_2-02-2016				
		Detaile	d Survey Requi	red?			
Detailed Survey Requ	red?: No		•				

County: Sacramento Route: 99 Postmile: 5.06 Survey Date: 02/02/2016



	BEC 21111	1100 6 17	DE 0/15/77/	MEGDIC	TION	
	RECONN		CE SURVEY	INFORMA ⁻	HON	
County: SAC		Rou	ute: 99			PM: 5.60
		Sur	vey Information			
Date 2/2/2010			Agency Perform		HDR	
Data Recorder JV	(24 hr.	·	Survey Team	JV, MA		
		Si	te Information			
	121 224644		GPS Data 38.31978:	<u>a</u>		
Longitude	-121.324644 Latitud			<u>ଅ</u>		
GPS HDOP	1.44 Loc. o	f GPS Point	above inlet		PM	
		Hyd	rologic Information			
Stream Name un	known			Source:		
Basin	Herald		Quad Name (7.5')	GALT		
USGS Hydrologic Unit	LOWER_COSUMNES- LOWER_MOKELUMNE		CalWater Unit HA	Lower Cos	umnes-Dry	
CalWater Unit HU	NORTH VALLEY FLOOR		CalWater Unit HSA	Herald		
		Natu	ral Stream Channel	?		
Is there a definable chann	nel upstream of culvert?		Yes			
Is the primary function for	storm water runoff or road	drainage?:	No			
Is the waterway a concret	e-lined flood control channe	el?	No			
		Potentia	al Fish Bearing Stre	am?		
Does the site contain an a	active channel width >2 fee	1?	Yes			
Is the stream gradient < 2	20%?		Yes			
			almonid ESU/DPS			
	Salmon) or DPS (Steelhe	ad)				
Central Valley Spring-Rur						
Central Valley Fall_Late F	-all-Run Chinook					
Central Valley Steelhead		Uistoria	c Anadromous Reac	h2		
Has the stream reach	tream of the crossing supp			-	known	
<u></u>	tream of the crossing supp to Cosumnes River, Histori		* *			
			Crossing Type			
Crossing Type Brid	dge w/ potential passage co	onstraints	ID			
General Description: Brid	dge exists at inlet. A box cuthink to survey.		e) is present at outlet.	Outlet is under ci	ty/county frontage road.	Vegetation at inlet
			Photos			
3.1 Upstream Looking Up	ostream - Photo I	SAC_99_5.60	0_3.1_2-02-2016			
3.2 Upstream Looking Do	ownstream - Photo I	SAC_99_5.60	0_3.2_2-02-2016			
3.3 Downstream Looking	Upstream - Photo ID	SAC_99_5.60	0_3.3_2-02-2016			
3.4 Downstream Looking	Downstream - Photo ID	SAC_99_5.6	0_3.4_2-02-2016			
		Detaile	d Survey Requir	ed?		
Detailed Survey Required	1?: No					

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County: Sacramento Route: 99 Postmile: 5.60 Survey Date: 02/02/2016

Upstream Looking Upstream

Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



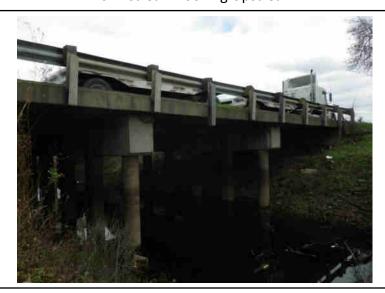
RECONNA	AISSANCE SURVEY INFORMATION	
County: SAC	Route: 99	PM: 6.54
	Survey Information	
Date 2/2/2016 Time 14:2		
Data Recorder JV (24 hr. cl	lock) Survey Team JV, MA	
	Site Information	
	GPS Data	
Longitude -121.330413 Latitude	e 38.332543	
GPS HDOP 2.46 Loc. of	GPS Point above inlet PM	
	Hydrologic Information	
Stream Name Willow Slough	Source: CT Bridge log	
Basin Herald	Quad Name (7.5')	
USGS Hydrologic Unit LOWER_COSUMNES-	CalWater Unit HA Lower Cosumnes-Dry	
LOWER_MOKELUMNE	Collinator Heit HCA Harald	
CalWater Unit HU NORTH VALLEY FLOOR	CalWater Unit HSA Herald	
la than a dafinable characteristic ()	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	No	
Is the primary function for storm water runoff or road d		
Is the waterway a concrete-lined flood control channel		
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 feet?	Yes	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhead	d)	
Central Valley Fall_Late Fall-Run Chinook	⊒	
Central Valley Steelhead	⊒	
Central Valley Spring-Run Chinook		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing suppo		
Source Tributary to Cosumnes River, Historica	al and Current dist. Of Pacific Salmonids in the Central Valley (NOAA 2005) Crossing Type	
Crossing Type bridge w/o potential passage co		
General Description: separate bridge for northbound		
	Photos	
3.1 Upstream Looking Upstream - Photo I	SAC_99_6.54_3.1_2-02-2016	
· · · · · · · · · · · · · · · · · · ·	SAC_99_6.54_3.2_2-02-2016	
· · · · · · · · · · · · · · · · · · ·	SAC_99_6.54_3.3_2-02-2016	
	SAC_99_6.54_3.4_2-02-2016	
	Detailed Survey Required?	
Detailed Survey Required?: No		

County: Sacramento Route: 99 Postmile: 6.54 Survey Date: 02/02/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



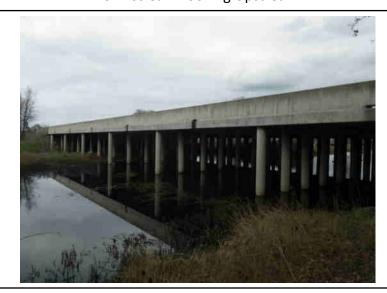
	RECONNA	AISSANG	CE SURVEY	INFORMAT	ION		
County: SAC			ute: 99	- Canada		PM:	6.96
		Sur	vey Information				
Date 2/2/2016	Time 14:2		Agency Perform		HDR		
Data Recorder JV	(24 hr. c	clock)	Survey Team	JV, MA			
		Si	te Information				
			GPS Data				
Longitude	-121.333011 Latitud	e	38.33816	2			
GPS HDOP	2.3 Loc. of	GPS Point	above inlet		PM		
		Hyd	Irologic Information				
Stream Name Badge	er Creek			Source: C	Γ Bridge log		
Basin He	erald		Quad Name (7.5')	GALT			
	OWER_COSUMNES-		CalWater Unit HA	Lower Cosur	nnes-Dry		
	OWER_MOKELUMNE ORTH VALLEY FLOOR		CallMator Linit LICA	Herald			
CalWater Unit HU NO	ON IN VALLET FLOOR		CalWater Unit HSA				
		Natu	ıral Stream Channel	?			
Is there a definable channel u	upstream of culvert?		Yes				
Is the primary function for stor	rm water runoff or road of	drainage?:	No	<u></u>			
Is the waterway a concrete-lin	ned flood control channe	l?	No				
		Potenti	al Fish Bearing Stre	eam?			
Does the site contain an activ	ve channel width >2 feet	?	Yes				
Is the stream gradient < 20%	?		Yes				
		S	almonid ESU/DPS				
ESU (Chinook and Coho Sali		ıd)					
Central Valley Spring-Run Ch							
Central Valley Fall_Late Fall-l	Run Chinook						
Central Valley Steelhead							
		Histori	c Anadromous Read				
Has the stream reach upstream				·			
Source Tributary to C	Cosumnes River, Historic	al and Curren		nonids in the Central	Valley (NOAA 2005)		
- I - I			Crossing Type				
•	w/o potential passage co		ID 240025				
General Description: one bri	iuge for both directions o	и гапіс	Dhatas				
2.4 Unotroom Locking Heater	nom Dhota I	EAC 00 00	Photos				
3.1 Upstream Looking Upstre			6_3.1_2-02-2016				
3.2 Upstream Looking Downs			6_3.2_2-02-2016				
3.3 Downstream Looking Ups3.4 Downstream Looking Do			6_3.3_2-02-2016 6_3.4_2-02-2016				
0.4 Downstream Looking DO	wholean - FIIOU ID						
	1	Detaile	d Survey Requi	red?			
Detailed Survey Required?:	No						

County: Sacramento Route: 99 Postmile: 6.96 Survey Date: 02/08/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION								
County: S	SAC			ute: 99			PM:	7.45
Survey Information								
Date 2	/2/2016	Time	14:50	Agency Perforr	ning Survey	HDR		
Data Recorder	JV		(24 hr. clock)	Survey Team	JV, MA			
			Si	ite Information				
				GPS Data				
Longitude		-121.336057	Latitude	38.34484	2			
GPS HDOP		1.45	Loc. of GPS Point	above inlet		PM		
			Нус	drologic Information				
Stream Name	Con	sumnes River Ove	rflow		Source: s	ign at site		
Basin		Herald		Quad Name (7.5')	GALT			
USGS Hydrologic		LOWER_COSUMI		CalWater Unit HA	Lower Cosu	ımnes-Dry		
CallMotor I Init I II	L	LOWER_MOKELL		CollMotor Unit USA	Herald			
CalWater Unit HL	· [NORTH VALLEY F		CalWater Unit HSA				
				ural Stream Channel	?			
Is there a definab	ble channe	I upstream of culve	ert?	Yes				
Is the primary fun	nction for s	torm water runoff o	r road drainage?:	No				
Is the waterway a	a concrete-	lined flood control	channel?	No				
			Potenti	ial Fish Bearing Stre	am?			
Does the site cor	ntain an ac	tive channel width	>2 feet?	Yes				
Is the stream gra	adient < 20°	%?		Yes				
			S	Salmonid ESU/DPS				
		almon) or DPS (S	teelhead)					
Central Valley Sp								
Central Valley Fa		II-Run Chinook						
Central Valley St	teelhead							
			Histori	c Anadromous Rea	ch? 			
				romous fish population		es		
Source Tributary to Cosumnes River, Historical and Current dist. Of Pacific Salmonids in the Central Valley (NOAA 2005)								
• • •	- h···	and and		Crossing Type				
Crossing Type bridge w/o potential passage constraints ID 240022								
General Description: separate bridges for northbound and southbound traffic								
3.1 Upstream Lo	nokina Una	tream - Photo I	SAC 00 7.4	Photos 5_3.1_2-02-2016				
3.2 Upstream Looking Downstream - Photo I SAC_99_7.45_3.2_2-02-2016 3.3 Downstream Looking Upstream - Photo ID SAC_99_7.45_3.3_2-02-2016								
3.4 Downstream Looking Downstream - Photo ID SAC_99_7.45_3.3_2-02-2016 SAC_99_7.45_3.4_2-02-2016								
Detailed Survey Required?								
Detelled Over	Dami'r d	. 1	Detalle	a Survey Requi	eu?			
Detailed Survey	kequired?	: No						

County: Sacramento Route: 99 Postmile: 7.45 Survey Date: 02/02/2016

Upstream Looking Upstream **Upstream Looking Downstream** Downstream Looking Upstream **Downstream Looking Downstream**

RECONNAISSANCE SURVEY INFORMATION					
County: SAC	Route: 99	PM: 8.00			
Survey Information					
Date 2/3/2016 Time 9:	Agency Performing Survey HDR				
Data Recorder JV (24 hr	. clock) Survey Team JV, MA				
	Site Information				
	GPS Data				
Longitude -121.340658 Latitu	ide 38.35225				
GPS HDOP 2.43 Loc.	of GPS Point above outlet PM				
	Hydrologic Information				
Stream Name Cosumnes River Overflow	Source: sign at site				
Basin Herald	Quad Name (7.5') GALT				
USGS Hydrologic Unit LOWER_COSUMNES-	CalWater Unit HA Lower Cosumnes-Dry				
LOWER_MOKELUMNE CalWater Unit HU NORTH VALLEY FLOOR	R CalWater Unit HSA Herald				
	Natural Stream Channel?				
Is there a definable channel upstream of culvert?	No				
Is the primary function for storm water runoff or road	I drainage?: No				
Is the waterway a concrete-lined flood control chann					
	Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 fee	et? No				
Is the stream gradient < 20%?	Yes				
	Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)				
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chinook					
Central Valley Steelhead					
Historic Anadromous Reach?					
Has the stream reach upstream of the crossing supported an anadromous fish population? Yes					
Source Tributary to Cosumnes River, Historical and Current dist. Of Pacific Salmonids in the Central Valley (NOAA 2005)					
Crossing Type					
Crossing Type bridge w/o potential passage constraints ID 240021					
General Description: separate bridge for northbound and southbound traffic					
	Photos	_			
3.1 Upstream Looking Upstream - Photo I	SAC_99_8.00_3.1_2-03-2016	<u> </u>			
3.2 Upstream Looking Downstream - Photo I SAC_99_8.00_3.2_2-03-2016					
3.3 Downstream Looking Upstream - Photo ID SAC_99_8.00_3.3_2-03-2016					
3.4 Downstream Looking Downstream - Photo ID	SAC_99_8.00_3.4_2-03-2016	<u></u>			
Detailed Survey Required?					
Detailed Survey Required?: No					

County: Sacramento Route: 99 Postmile: 8.00 Survey Date: 02/03/2016

Upstream Looking Upstream

Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION					
County: SAC	Route: 99	PM: 8.40			
Survey Information					
Date 2/3/2016 Time 9:	50 Agency Performing Survey HDR				
Data Recorder JV (24 hr	. clock) Survey Team JV, MA				
	Site Information				
	GPS Data				
Longitude -121.343617 Latitu	38.357439				
GPS HDOP 2.34 Loc.	of GPS Point above outlet PM				
	Hydrologic Information				
Stream Name Cosumnes River	Source: sign at site				
Basin Herald	Quad Name (7.5') GALT				
USGS Hydrologic Unit LOWER_COSUMNES-	CalWater Unit HA Lower Cosumnes-Dry				
LOWER_MOKELUMNE	Call Material Initiation				
CalWater Unit HU NORTH VALLEY FLOOI	R CalWater Unit HSA Herald				
	Natural Stream Channel?				
Is there a definable channel upstream of culvert?	Yes				
Is the primary function for storm water runoff or road	d drainage?:				
Is the waterway a concrete-lined flood control channel	nel? No				
	Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 fee	et? Yes				
Is the stream gradient < 20%?	Yes				
	Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)				
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chinook					
Central Valley Steelhead					
	Historic Anadromous Reach?				
Has the stream reach upstream of the crossing supp					
Source Historical and Current dist. Of Pacific Salmonids in the Central Valley (NOAA 2005)					
	Crossing Type				
Crossing Type bridge w/o potential passage					
General Description: separate bridge for northbound and southbound traffic					
Photos					
3.1 Upstream Looking Upstream - Photo I	SAC_99_8.40_3.1_2-03-2016				
3.2 Upstream Looking Downstream - Photo I SAC_99_8.40_3.2_2-03-2016					
3.3 Downstream Looking Upstream - Photo ID SAC_99_8.40_3.3_2-03-2016					
3.4 Downstream Looking Downstream - Photo ID	SAC_99_8.40_3.4_2-03-2016				
Detailed Survey Required?					
Detailed Survey Required?: No					

County: Sacramento Route: 99 Postmile: 8.40 Survey Date: 02/03/2016



RECONNAISSANCE SURVEY INFORMATION					
County: SAC	Route: 99	PM: 10.60			
Survey Information					
Date 2/3/2016 Time 10:	40 Agency Performing Survey HDR				
Data Recorder JV (24 hr.	clock) Survey Team JV, MA				
	Site Information				
	GPS Data				
Longitude -121.364769 Latitude	de 38.379672				
GPS HDOP 2.79 Loc. o	f GPS Point above inlet PM				
	Hydrologic Information				
Stream Name unknown	Source:				
Basin Franklin	Quad Name (7.5') ELK GROVE				
USGS Hydrologic Unit LOWER_SACRAMENTO	CalWater Unit HA Morrison Creek				
CalWater Unit HU VALLEY-AMERICAN	CalWater Unit HSA Franklin				
	Natural Stream Channel?				
Is there a definable channel upstream of culvert?	No				
Is the primary function for storm water runoff or road	drainage?: Unknown				
Is the waterway a concrete-lined flood control channel	el? No				
	Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 fee	i? No				
Is the stream gradient < 20%?	Yes				
	Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)				
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chinook					
Central Valley Steelhead					
	Historic Anadromous Reach?				
Has the stream reach upstream of the crossing supp	orted an anadromous fish population? Unknown				
Source					
Crossing Type					
Crossing Type Culvert	ID				
General Description: concrete double box culvert					
	Photos				
3.1 Upstream Looking Upstream - Photo I	SAC_99_10.60_3.1_2-03-2016				
3.2 Upstream Looking Downstream - Photo I	SAC_99_10.60_3.2_2-03-2016				
3.3 Downstream Looking Upstream - Photo ID N/A					
3.4 Downstream Looking Downstream - Photo ID N/A					
Detailed Survey Required?					
Detailed Survey Required?: No]				

County: Sacramento Route: 99 Postmile: 10.60 Survey Date: 02/03/2016

Upstream Looking Upstream	Upstream Looking Downstream
Downstream Looking Upstream	Downstream Looking Downstream
N/A	N/A

RECONNAISSANCE SURVEY INFORMATION					
County: SAC	Route: 99	PM: 13.00			
Survey Information					
Date 2/3/2016 Time 11:	30 Agency Performing Survey HDR				
Data Recorder JV (24 hr.	clock) Survey Team JV, MA				
	Site Information				
	GPS Data				
Longitude -121.389768 Latitude	de 38.412415				
GPS HDOP 2.34 Loc. of	f GPS Point above inlet PM				
	Hydrologic Information				
Stream Name Elk Grove Creek	Source: sign at site				
Basin Franklin	Quad Name (7.5') FLORIN	\neg			
USGS Hydrologic Unit LOWER_SACRAMENTO	· /	=			
CalWater Unit HU VALLEY-AMERICAN	CalWater Unit HSA Franklin				
	Natural Stream Channel?	-			
Is there a definable channel upstream of culvert?	Yes				
Is the primary function for storm water runoff or road					
Is the waterway a concrete-lined flood control channel					
to the waterway a controller-lined flood control challing					
	Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 fee					
Is the stream gradient < 20%?	Yes				
	Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)				
Central Valley Spring-Run Chinook	\dashv				
Central Valley Fall_Late Fall-Run Chinook					
Central Valley Steelhead	Historia Anadromous Book 2				
	Historic Anadromous Reach?				
Has the stream reach upstream of the crossing supp	<u> </u>				
Source Inlet and outlet on city/county frontage	e roads not under Caltrans jurisdiction.				
	Crossing Type				
Crossing Type Culvert	ID 240019	1			
General Description: concrete double box culvert Photos					
3.1 Upstream Looking Upstream - Photo I	SAC_99_13.00_3.1_2-03-2016				
Upstream Looking Downstream - Photo I	SAC_99_13.00_3.1_2-03-2016 SAC_99_13.00_3.2_2-03-2016				
•					
3.3 Downstream Looking Upstream - Photo ID3.4 Downstream Looking Downstream - Photo ID	SAC_99_13.00_3.3_2-03-2016 SAC_99_13.00_3.4_2-03-2016	I			
Detailed Survey Required?					
Detailed Survey Required?: No					

County: Sacramento Route: 99 Postmile: 13.00 Survey Date: 02/03/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION				
County: SAC				
	Survey Information			
Date 2/3/2016 Time 12	:00 Agency Performing Survey HDR			
Data Recorder JV (24 hr	. clock) Survey Team JV, MA			
	Site Information			
	GPS Data			
Longitude -121.398071 Latitu	de 38.430586			
GPS HDOP 1.7 Loc.	of GPS Point above inlet PM			
	Hydrologic Information			
Stream Name Laguna Creek	Source: sign at site			
Basin Franklin	Quad Name (7.5') FLORIN			
USGS Hydrologic Unit LOWER_SACRAMENTO	CalWater Unit HA Morrison Creek			
CalWater Unit HU VALLEY-AMERICAN	CalWater Unit HSA Franklin			
	Natural Stream Channel?			
Is there a definable channel upstream of culvert?	Yes			
Is the primary function for storm water runoff or road	drainage?: No			
Is the waterway a concrete-lined flood control chann	-			
	Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 fee	et? Yes			
Is the stream gradient < 20%?	Yes			
	Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)			
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead				
	Historic Anadromous Reach?			
Has the stream reach upstream of the crossing supp	ported an anadromous fish population? Unknown			
Source				
Crossing Type				
Crossing Type bridge w/o potential passage constraints ID 240018				
General Description: 99 bridge is paralleled by frontage road bridges on each side				
	Photos	7		
3.1 Upstream Looking Upstream - Photo I	SAC_99_14.32_3.1_2-03-2016	1		
3.2 Upstream Looking Downstream - Photo I	SAC_99_14.32_3.2_2-03-2016	1		
3.3 Downstream Looking Upstream - Photo ID SAC_99_14.32_3.3_2-03-2016				
3.4 Downstream Looking Downstream - Photo ID SAC_99_14.32_3.4_2-03-2016				
	Detailed Survey Required?			
Detailed Survey Required?: No				

County: Sacramento Route: 99 Postmile: 14.32 Survey Date: 02/03/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION										
County: S	AC			Ro	oute: 99				PM:	14.63
				Su	rvey Information					
Date 2/	3/2016	Time	12:30		Agency Performi	ing Survey		HDR		
Data Recorder	JV		(24 hr. clock)		Survey Team	JV, MA				
				S	ite Information					
					GPS Data					
Longitude		-121.399891	Latitude		38.43475					
GPS HDOP		3.44	Loc. of GPS P	oint	above inlet			PM		
				Ну	drologic Information					
Stream Name	White	house Creek				Source:	sign at s	ite		
Basin	F	ranklin			Quad Name (7.5')	FLORIN				
USGS Hydrologic		OWER_SACRA	MENTO		CalWater Unit HA	Morrison (Creek			
CalWater Unit HU	_	ALLEY-AMERIC			CalWater Unit HSA	Franklin				
		/			-					
				Nat	ural Stream Channel?	<u> </u>				
Is there a definable	e channel ı	upstream of culv	vert?		Yes					
Is the primary fund	ction for sto	rm water runoff	or road drainage	e?:	Unknown					
Is the waterway a	concrete-lii	ned flood contro	ol channel?		No					
			Р	otent	tial Fish Bearing Strea	ım?				
Does the site con	tain an acti	ve channel widt	h >2 feet?		Yes	\neg				
Is the stream grad					Yes	=				
				9	Salmonid ESU/DPS					
ESU (Chinook and	d Coho Sal	mon) or DPS (Steelhead)		200/21 0					
Central Valley Spi		,								
Central Valley Fal										
Central Valley Ste		TOTAL CHILIDON								
Central valley Ste	Ciricau		ш	listor	ic Anadromous Reach	1?				
Handle 1	1						lan avera			
	•		•		dromous fish population		known	0	!b!-	
Source Outlet location unknown. Aerial imagery suggests historical upstream channel was diverted to Elk Grove Creek. Possible overflow channel.										
					Crossing Type					
Crossing Ty	ype Culver	t			ID 240017					
General Description	on: concre	te triple bay cul	vert							
Photos										
3.1 Upstream Loc	oking Upstr	eam - Photo I	SAC_9	9_14	.63_3.1_2-03-2016					
3.2 Upstream Loc	oking Down	stream - Photo	SAC_9	9_14	.63_3.2_2-03-2016					
3.3 Downstream	Looking Up	stream - Photo								
3.4 Downstream										
Detailed Survey Required?										
Detailed Survey R	Required?	No			, , , , , , , , , , , , , , , , , , , ,					
	1	140								

County: Sacramento Route: 99 Postmile: 14.63 Survey Date: 02/03/2016

Upstream Looking Upstream	Upstream Looking Downstream	
Downstream Looking Upstream	Downstream Looking Downstream	
N/A	N/A	

RECONNAISSANCE SURVEY INFORMATION				
County: SAC	Route: 99	PM: 15.38		
	Survey Information			
Date 2/3/2016 Time 13	Agency Performing Survey HDF	₹		
Data Recorder JV (24 hr.	clock) Survey Team JV, MA			
	Site Information			
	GPS Data			
Longitude -121.404618 Latitu	de 38.444904			
GPS HDOP 1.76 Loc. 0	of GPS Point above inlet	PM		
	Hydrologic Information			
Stream Name Jacinto Creek	Source: sign at site			
Basin Franklin	Quad Name (7.5') FLORIN			
USGS Hydrologic Unit LOWER_SACRAMENTO				
CalWater Unit HU VALLEY-AMERICAN	CalWater Unit HSA Franklin			
	Natural Stream Channel?			
Is there a definable channel upstream of culvert?	Yes			
Is the primary function for storm water runoff or road	drainage?: No			
Is the waterway a concrete-lined flood control chann				
,	Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 fee	-			
Is the stream gradient < 20%?	Yes			
To the should grade it 12070.	Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhe				
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead	$\overline{}$			
	Historic Anadromous Reach?			
Has the stream reach upstream of the crossing supp	orted an anadromous fish population? Unknown			
Source Tributary to Laguna Creek. Culvert u	nder multiple city/county frontage roads and subdivision.			
Crossing Type				
Crossing Type Culvert	ID			
General Description: Creek is located under Sheldon Plc Dr. where 2 retention basin inlets connect into culvert inlet that flows under Hwy 99 and continues under Tolkien Ave to Jacinto Creek Park where the outlet is located				
Photos				
3.1 Upstream Looking Upstream - Photo I	SAC_99_15.38_3.1_2-03-2016			
3.2 Upstream Looking Downstream - Photo I	SAC_99_15.38_3.2_2-03-2016			
3.3 Downstream Looking Upstream - Photo ID SAC_99_15.38_3.3_2-03-2016				
3.4 Downstream Looking Downstream - Photo ID SAC_99_15.38_3.4_2-03-2016				
Detailed Survey Required?				
Detailed Survey Required?: No				

County: Sacramento Route: 99 Postmile: 15.38 Survey Date: 02/03/2016

Upstream Looking Upstream

Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION					
County: SAC	Route: 99	PM: 16.36			
	Survey Information				
Date 2/3/2016 Time 15	Agency Performing Survey HDR				
Data Recorder JV (24 hr	C. clock) Survey Team JV, MA				
	Site Information				
	GPS Data				
Longitude -121.41076 Latitu	38.458175				
GPS HDOP 2.08 Loc.	of GPS Point above inlet PM				
	Hydrologic Information				
Stream Name Strawberry Creek	Source: CT Bridge log				
Basin Franklin	Quad Name (7.5') FLORIN				
USGS Hydrologic Unit LOWER_SACRAMENTO	O CalWater Unit HA Morrison Creek				
CalWater Unit HU VALLEY-AMERICAN	CalWater Unit HSA Franklin				
	Natural Stream Channel?				
Is there a definable channel upstream of culvert?	Yes				
Is the primary function for storm water runoff or road	d drainage?:				
Is the waterway a concrete-lined flood control chann	nel? Yes				
	Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 fee	et? Yes				
Is the stream gradient < 20%?	Yes				
	Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)				
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chinook					
Central Valley Steelhead					
	Historic Anadromous Reach?				
Has the stream reach upstream of the crossing sup	·				
Source Tributary to Morrison Creek, which i					
Crossing Type					
Crossing Type Culvert	ID 240016				
General Description: Concrete 5-bay culvert.					
	Photos	7			
3.1 Upstream Looking Upstream - Photo I	SAC_99_16.36_3.1_2-03-2016	1			
3.2 Upstream Looking Downstream - Photo I SAC_99_16.36_3.2_2-03-2016					
3.3 Downstream Looking Upstream - Photo ID SAC_99_16.36_3.3_2-03-2016					
3.4 Downstream Looking Downstream - Photo ID SAC_99_16.36_3.4_2-03-2016					
Detailed Survey Required?					
Detailed Survey Required?: Yes					

RECONNAISSANCE SURVEY INFORMATION County: SAC Route: 99 PM: 16.36 **Access Information** Land Ownership: Upstream private Owner(s) Owner(s) Caltrans right-of-way? Downstream public Accessible from road? Upstream? Limitations inlet surrounded by fencing outlet access via 99 southbound Calvine Rd. off-ramp Downstream? Limitations **Vegetation Removal Required?** (If "Yes", comment and take photograph) Upstream? No Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID Comments **Maintenance Assistance Required?** Upstream? (If "Yes", comment and take photograph) Photo ID No (If "Yes", comment and take photograph) Downstream? Photo ID Comments **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVERT

Yes Yes

Yes

Report Date 03-15-2016

Is culvert diameter > 60"?

Can you see all the way through the end of the culvert?

Can you feel a breeze through the culvert?

County: Sacramento Route: 99 Postmile: 16.36 Survey Date: 02/03/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION					
County: SAC	Route: 99	PM: 16.78			
	Survey Information				
Date 2/4/2016 Time 9:5	Agency Performing Survey HDR				
Data Recorder JV (24 hr.	clock) Survey Team JV, MA				
	Site Information				
	GPS Data				
Longitude -121.413597 Latitud	de 38.464092				
GPS HDOP 3.39 Loc. o	f GPS Point above inlet PM				
	Hydrologic Information				
Stream Name unknown	Source:				
Basin Franklin	Quad Name (7.5') FLORIN				
USGS Hydrologic Unit LOWER_SACRAMENTO	CalWater Unit HA Morrison Creek				
CalWater Unit HU VALLEY-AMERICAN	CalWater Unit HSA Franklin				
	Natural Stream Channel?				
Is there a definable channel upstream of culvert?	Yes				
Is the primary function for storm water runoff or road	drainage?: Yes				
Is the waterway a concrete-lined flood control channel	·				
	Potential Fish Bearing Stream?				
December of the contains an active above to the Co.					
Does the site contain an active channel width >2 fee:	Yes Yes				
Is the stream gradient < 20%?	Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhea					
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chinook	\exists				
Central Valley Steelhead					
	Historic Anadromous Reach?				
Has the stream reach upstream of the crossing supp	orted an anadromous fish population?				
Source					
	Crossing Type				
Crossing Type Culvert	ID				
General Description: concrete pipe culvert					
Photos					
3.1 Upstream Looking Upstream - Photo I	SAC_99_16.78_3.1_2-04-2016				
3.2 Upstream Looking Downstream - Photo I	SAC_99_16.78_3.2_2-04-2016				
3.3 Downstream Looking Upstream - Photo ID	N/A				
3.4 Downstream Looking Downstream - Photo ID N/A					
Detailed Survey Required?					
Detailed Survey Required?: No					

County: Sacramento Route: 99 Postmile: 16.78 Survey Date: 02/04/2016

Upstream Looking Upstream	Upstream Looking Downstream
Downstream Looking Upstream	Downstream Looking Downstream
N/A	N/A

RECONNAISSANCE SURVEY INFORMATION					
County: SAC	PM: 17.32				
***************************************	Survey Information				
Date 2/4/2016 Time 10:3	Agency Performing Survey HDR				
Data Recorder JV (24 hr. c	Survey Team JV, MA				
	Site Information				
	GPS Data				
Longitude -121.417662 Latitude	38.470939				
GPS HDOP 1.77 Loc. of	GPS Point above inlet PM				
	Hydrologic Information				
Stream Name Union House Creek (formerly E	Beacon Creek) Source:				
Basin Franklin	Quad Name (7.5') FLORIN				
USGS Hydrologic Unit LOWER_SACRAMENTO	CalWater Unit HA Morrison Creek				
CalWater Unit HU VALLEY-AMERICAN	CalWater Unit HSA Franklin				
	Natural Stream Channel?				
Is there a definable channel upstream of culvert?	Yes				
Is the primary function for storm water runoff or road d	rainage?: No				
Is the waterway a concrete-lined flood control channel	? Yes				
	Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 feet?	Yes				
Is the stream gradient < 20%?	Yes				
	Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhead	d)				
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chinook					
Central Valley Steelhead					
Historic Anadromous Reach?					
Has the stream reach upstream of the crossing support	rted an anadromous fish population? Unknown				
Source Tributary to Strawberry Creek					
Crossing Type					
Crossing Type Culvert ID					
General Description: concrete triple bay box culvert under southbound onramp					
2.4 Upotroom Locking Upotroom Bhata L	Photos				
· · · · · · · · · · · · · · · · · · ·	SAC_99_17.32_3.1_2-04-2016				
3.2 Upstream Looking Downstream - Photo I SAC_99_17.32_3.2_2-04-2016					
3.3 Downstream Looking Upstream - Photo ID SAC_99_17.32_3.3_2-04-2016 SAC_99_17.32_3.3_2-04-2016					
3.4 Downstream Looking Downstream - Photo ID SAC_99_17.32_3.4_2-04-2016					
	Detailed Survey Required?				
Detailed Survey Required?: Yes					

RECONNAISSANCE SURVEY INFORMATION County: SAC Route: 99 PM: 17.32 **Access Information** Land Ownership: Upstream private Owner(s) Downstream private Owner(s) Accessible from road? Upstream? Limitations access via East Stockton and commercial complex near Triplle C Uphostry and Botty Boot Camp Downstream? No Limitations **Vegetation Removal Required?** No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No Downstream? (If "Yes", comment and take photograph) Photo ID Comments Maintenance Assistance Required? No Upstream? (If "Yes", comment and take photograph) Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVERT Is culvert diameter > 60"? Yes Can you see all the way through the end of the culvert? Yes

Yes

Report Date 03-15-2016

Can you feel a breeze through the culvert?

County: Sacramento Route: 99 Postmile: 17.32 Survey Date: 02/04/2016

Upstream Looking Upstream

Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION					
County: SAC	AC Route: 99				
	Survey Information				
Date 2/4/2016 Time 10	2:20 Agency Performing Survey HDR				
Data Recorder JV (24 hr	. clock) Survey Team JV, MA				
	Site Information				
	GPS Data				
Longitude -121.418833 Latitu	38.470808				
GPS HDOP 1.75 Loc.	of GPS Point above inlet PM				
	Hydrologic Information				
Stream Name Union House Creek (formerly	y Beacon Creek) Source: CT Bridge log				
Basin Franklin	Quad Name (7.5') FLORIN				
USGS Hydrologic Unit LOWER_SACRAMENTO	CalWater Unit HA Morrison Creek				
CalWater Unit HU VALLEY-AMERICAN	CalWater Unit HSA Franklin				
	Natural Stream Channel?				
Is there a definable channel upstream of culvert?	Yes				
Is the primary function for storm water runoff or road	d drainage?:				
Is the waterway a concrete-lined flood control chann					
	Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 fee	et? Yes				
Is the stream gradient < 20%?	Yes				
	Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhead)					
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chinook					
Central Valley Steelhead					
	Historic Anadromous Reach?				
Has the stream reach upstream of the crossing supp	ported an anadromous fish population? Unknown				
Source Tributary to Strawberry Creek					
Crossing Type					
Crossing Type Culvert ID 240189					
General Description: Concrete triple bay culvert. Outlet under city/county frontage road.					
Od Hadron Lock H. J. St. J.	Photos	7			
3.1 Upstream Looking Upstream - Photo I	SAC_99_17.33_3.1_2-04-2016	1			
3.2 Upstream Looking Downstream - Photo I SAC_99_17.33_3.2_2-04-2016					
3.3 Downstream Looking Upstream - Photo ID SAC_99_17.33_3.3_2-04-2016					
3.4 Downstream Looking Downstream - Photo ID SAC_99_17.33_3.4_2-04-2016					
Detailed Survey Required?					
Detailed Survey Required?: Yes					

RECONNAISSANCE SURVEY INFORMATION County: SAC Route: 99 PM: 17.33 **Access Information** Land Ownership: Owner(s) Commercial complex Upstream private Downstream private Owner(s) Accessible from road? Upstream? Limitations Access via East Stockton and back of commercial complex near Triple C Upostry and Booty Boot Camp Downstream? No Limitations **Vegetation Removal Required?** No (If "Yes", comment and take photograph) Upstream? Photo ID Comments No Downstream? (If "Yes", comment and take photograph) Photo ID Comments Maintenance Assistance Required? No Upstream? (If "Yes", comment and take photograph) Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVERT Is culvert diameter > 60"? Yes

Yes Yes

Report Date 03-15-2016

Can you see all the way through the end of the culvert?

Can you feel a breeze through the culvert?

County: Sacramento Route: 99 Postmile: 17.33 Survey Date: 02/04/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION				
County: SAC	Route: 99	PM: 18.05		
	Survey Information			
Date 2/4/2016 Time 11:	00 Agency Performing Survey HDR			
Data Recorder JV (24 hr.	clock) Survey Team JV, MA			
	Site Information			
	GPS Data			
Longitude -121.427981 Latitude	de 38.478789			
GPS HDOP 2.19 Loc. of	f GPS Point above outlet PM			
	Hydrologic Information			
Stream Name Elder Creek	Source: CT Bridge log			
Basin Franklin	Quad Name (7.5') FLORIN			
USGS Hydrologic Unit LOWER_SACRAMENTO				
CalWater Unit HU VALLEY-AMERICAN	CalWater Unit HSA Franklin			
	Natural Stream Channel?			
Is there a definable channel upstream of culvert?	Yes			
Is the primary function for storm water runoff or road				
Is the waterway a concrete-lined flood control channel				
is the materials a control miles most control charms	Potential Fish Bearing Stream?			
Does the site contain an active channel width >2 fee				
Is the stream gradient < 20%?	Yes			
FOUNDAMENT OF THE PROPERTY OF	Salmonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)			
Central Valley Spring-Run Chinook	=			
Central Valley Fall_Late Fall-Run Chinook	\dashv			
Central Valley Steelhead	Historia Anadromous Possh?			
Historic Anadromous Reach?				
Has the stream reach upstream of the crossing supp	orted an anadromous fish population? Unknown			
Source Tributary to Morrison Creek	Crossing Type			
Crossing Type Bridge w/ potential passage co	2.11			
· · ·	concrete channels underneath. Fenced and not accessible for surveying.			
Photos				
3.1 Upstream Looking Upstream - Photo I	N/A			
3.2 Upstream Looking Downstream - Photo I	N/A			
3.3 Downstream Looking Upstream - Photo ID	SAC_99_18.05_3.3_2-04-2016			
3.4 Downstream Looking Downstream - Photo ID SAC_99_18.05_3.4_2-04-2016 SAC_99_18.05_3.4_2-04-2016				
During Occurs Day 1921	Detailed Survey Required?			
Detailed Survey Required?: Yes				

RECONNAISSANCE SURVEY INFORMATION County: SAC Route: 99 PM: 18.05 **Access Information** Land Ownership: Owner(s) unknown Upstream private Downstream unknown Owner(s) unknown Accessible from road? Upstream? Limitations No access point from highway Yes access via La Mancha Way Downstream? Limitations **Vegetation Removal Required?** (If "Yes", comment and take photograph) Upstream? No Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID **Maintenance Assistance Required?** Upstream? (If "Yes", comment and take photograph) Comments Not safe to enter channel; not accessible. Photo ID Downstream? Yes (If "Yes", comment and take photograph) Photo ID Comments Not safe to enter channel; not accessible **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVERT

Yes Yes

Yes

Report Date 03-15-2016

Is culvert diameter > 60"?

Can you see all the way through the end of the culvert?

Can you feel a breeze through the culvert?

County: Sacramento Route: 99 Postmile: 18.05 Survey Date: 02/04/2016

Upstream Looking Upstream	Upstream Looking Downstream
N/A	N/A
Downstream Looking Upstream	Downstream Looking Downstream

RECONNAISSANCE SURVEY INFORMATION					
County: SAC	Route: 99	PM: 18.64			
Survey Information					
Date 2/4/2016 Time 11:	30 Agency Performing Survey HDR]			
Data Recorder JV (24 hr. c	Clock) Survey Team JV, MA				
	Site Information				
	GPS Data				
Longitude -121.434347 Latitud	le 38.485458				
GPS HDOP 1.92 Loc. o	f GPS Point above inlet PM				
	Hydrologic Information				
Stream Name Florin Creek	Source: CT Bridge log				
Basin Franklin	Quad Name (7.5') FLORIN	\neg			
USGS Hydrologic Unit LOWER_SACRAMENTO	CalWater Unit HA Morrison Creek				
CalWater Unit HU VALLEY-AMERICAN	CalWater Unit HSA Franklin	=			
	Natural Stream Channel?				
Is there a definable channel upstream of culvert?	Yes				
Is the primary function for storm water runoff or road of					
•					
Is the waterway a concrete-lined flood control channe					
	Potential Fish Bearing Stream?				
Does the site contain an active channel width >2 feet	? Yes				
Is the stream gradient < 20%?	Yes				
	Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhea	ad)				
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chinook					
Central Valley Steelhead					
	Historic Anadromous Reach?				
Has the stream reach upstream of the crossing support	orted an anadromous fish population? Unknown				
Source Tributary to Morrison Creek					
	Crossing Type				
Crossing Type Culvert	ID 240181				
General Description: Concrete triple bay box culvert. Outlet under city/county frontage road. Channel planned for concrete lining by USACE in 2016.					
	Photos				
3.1 Upstream Looking Upstream - Photo I	SAC_99_18.64_3.1_2-04-2016				
3.2 Upstream Looking Downstream - Photo I	SAC_99_18.64_3.2_2-04-2016				
3.3 Downstream Looking Upstream - Photo ID	SAC_99_18.64_3.3_2-04-2016				
3.4 Downstream Looking Downstream - Photo ID SAC_99_18.64_3.4_2-04-2016					
Detailed Survey Required?					
Detailed Survey Required?: Yes					

RECONNAISSANCE SURVEY INFORMATION County: SAC Route: 99 PM: 18.64 **Access Information** Land Ownership: Upstream public Owner(s) Downstream public Owner(s) Accessible from road? Upstream? Limitations access via Sheldon Park access via La Mancha Way Downstream? Limitations **Vegetation Removal Required?** Upstream? No (If "Yes", comment and take photograph) Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID Comments **Maintenance Assistance Required?** Upstream? No (If "Yes", comment and take photograph) Photo ID No Downstream? (If "Yes", comment and take photograph) Photo ID Comments **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVERT Is culvert diameter > 60"? Yes

Yes

Yes

Report Date 03-15-2016

Can you see all the way through the end of the culvert?

Can you feel a breeze through the culvert?

County: Sacramento Route: 99 Postmile: 18.64 Survey Date: 02/04/2016

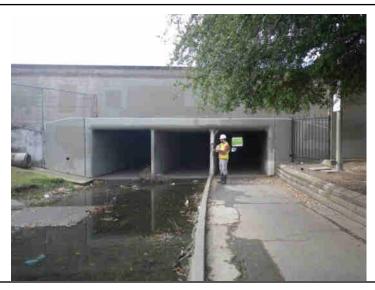
Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONN	AISSANCE SURVEY INFORMATION	
County: SAC	Route: 104	PM: 3.56
	Survey Information	
Date 2/1/2016 Time 14:	50 Agency Performing Survey HDR	
Data Recorder JV (24 hr.	clock) Survey Team JV, MA	
	Site Information	
	GPS Data	
Longitude -121.247901 Latitud	de 38.293849	
GPS HDOP 2.45 Loc. o	f GPS Point above outlet PM	
	Hydrologic Information	
Stream Name unknown	Source:	
Basin Herald	Quad Name (7.5') GALT	
USGS Hydrologic Unit LOWER_COSUMNES-	CalWater Unit HA Lower Cosumnes-Dry	
LOWER_MOKELUMNE	California i i i i i i i i i i i i i i i i i i	
CalWater Unit HU NORTH VALLEY FLOOR		
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	Yes	
Is the primary function for storm water runoff or road	drainage?: Yes	
Is the waterway a concrete-lined flood control channel	el? No	
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 feet	Yes Yes	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhea	ad)	
Central Valley Spring-Run Chinook	ᆜ	
Central Valley Fall_Late Fall-Run Chinook	ᆜ	
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing support	orted an anadromous fish population?	
Source		
	Crossing Type	
Crossing Type Culvert	ID	
General Description: concrete box culvert		
	Photos	_
3.1 Upstream Looking Upstream - Photo I	SAC_104_3.56_3.1_2-01-2016	ᆗ
3.2 Upstream Looking Downstream - Photo I	SAC_104_3.56_3.2_2-01-2016	ᆜ
3.3 Downstream Looking Upstream - Photo ID	SAC_104_3.56_3.3_2-01-2016	ᆜ
3.4 Downstream Looking Downstream - Photo ID	SAC_104_3.56_3.4_2-01-2016	
	Detailed Survey Required?	
Detailed Survey Required?: No]	

County: Sacramento Route: 104 Postmile: 3.56 Survey Date: 02/01/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONN	AISSANCE SURVEY	INFORMATION	
County: SAC	Route: 104		PM: 4.30
	Survey Information		
Date 2/1/2016 Time 14:			
Data Recorder JV (24 hr.	clock) Survey Team	JV, MA	
	Site Information		
	GPS Data		
Longitude -121.236783 Latitude	de 38.30002	6	
GPS HDOP 2.66 Loc. of	of GPS Point above outlet	PM	
	Hydrologic Information		
Stream Name Skunk Creek		Source:	
Basin Herald	Quad Name (7.5')	GALT	
USGS Hydrologic Unit LOWER_COSUMNES-	CalWater Unit HA	Lower Cosumnes-Dry	
LOWER_MOKELUMNE CalWater Unit HU NORTH VALLEY FLOOR	CalWater Unit HSA	Herald	
California Indivini VALLET PEOON			
	Natural Stream Channel	?	
Is there a definable channel upstream of culvert?	Yes		
Is the primary function for storm water runoff or road			
Is the waterway a concrete-lined flood control channel	el? No		
	Potential Fish Bearing Stre	eam?	
Does the site contain an active channel width >2 fee	t? Yes		
Is the stream gradient < 20%?	Yes		
	Salmonid ESU/DPS		
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ad)		
Central Valley Spring-Run Chinook	<u>_</u>		
Central Valley Fall_Late Fall-Run Chinook	_		
Central Valley Steelhead		.1.0	
	Historic Anadromous Read		
Has the stream reach upstream of the crossing supp	, ,		
Source Tributary to Cosumnes River, Histori		nonids in the Central Valley (NOAA 2005)	
Consolina Time Insidential and a standard and a sta	Crossing Type		
Crossing Type bridge w/o potential passage of General Description:	constraints ID 240042		
Concrat Description.	Photos		
3.1 Upstream Looking Upstream - Photo I	SAC_104_4.30_3.1_2-01-2016		
3.2 Upstream Looking Downstream - Photo I	SAC_104_4.30_3.1_2-01-2016		
3.3 Downstream Looking Upstream - Photo ID	SAC_104_4.30_3.3_2-01-2016		
3.4 Downstream Looking Downstream - Photo ID	SAC_104_4.30_3.4_2-01-2016		!
	Detailed Survey Requir	red?	
Detailed Survey Required?: No			

County: Sacramento Route: 104 Postmile: 4.30 Survey Date: 02/01/2016

Upstream Looking Upstream



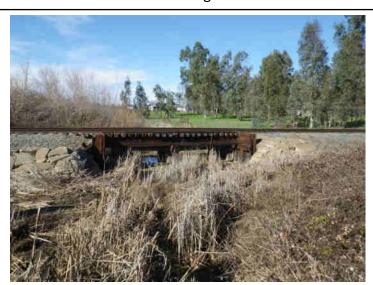
Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION					
County: SAC		ute: 104			PM: 5.18
	Sur	vey Information			
Date 2/1/2016	Time 14:02	Agency Performi	ng Survey	HDR	
Data Recorder Mark Asher	nfelter (24 hr. clock)	Survey Team	MA, JV		
	Si	ite Information			
		GPS Data			
Longitude -	121.223527 Latitude	38.30734			
GPS HDOP	1.69 Loc. of GPS Point	above outlet		PM	
	Hyd	Irologic Information			
Stream Name Rolling D	Draw		Source: C	T Bridge log	
Basin Hera	ald	Quad Name (7.5')	GALT		
	VER_COSUMNES-	CalWater Unit HA	Lower Cosur	mnes-Dry	
	VER_MOKELUMNE RTH VALLEY FLOOR	CalWater Unit HSA	Herald		\neg
Caivvaler Utill HU INOR			I lei alu		
le there e defined a large large		ıral Stream Channel?			
Is there a definable channel ups		Yes			
Is the primary function for storm	_	No	<u></u>		
Is the waterway a concrete-lined		No			
	Potenti	al Fish Bearing Strea	m?		
Does the site contain an active of	channel width >2 feet?	Yes			
Is the stream gradient < 20%?		Yes			
		almonid ESU/DPS			
ESU (Chinook and Coho Salmo	<u> </u>				
Central Valley Spring-Run Chino					
Central Valley Fall_Late Fall-Ru	un Chinook				
Central Valley Steelhead	His to all	o Anadromous Desait	.2		
Lies the street wash water		c Anadromous Reach		OWD	
	of the crossing supported an anade sumnes River, Historical and Currer		•		
Thousand Company to Cos	- Indicated and Outlet	Crossing Type			
Crossing Type bridge w/o	o potential passage constraints	ID 240041			
General Description:					
		Photos			
3.1 Upstream Looking Upstream	m - Photo I SAC_104_5.	18_3.1_2-01-2016			
3.2 Upstream Looking Downstre	ream - Photo I N/A				
3.3 Downstream Looking Upstre	ream - Photo ID N/A				
3.4 Downstream Looking Down	nstream - Photo ID SAC_104_5.	.18_3.4_2-01-2016			
	Detaile	d Survey Require	ed?		
Detailed Survey Required?:	No				

County: Sacramento Route: 104 Postmile: 5.18 Survey Date: 02/01/2016

Upstream Looking Upstream	N/A		
Downstream Looking Upstream	Downstream Looking Downstream		
N/A			

RECONNAISSANCE SURVEY INF	ORMATION
County: SAC Route: 104	PM: 5.44
Survey Information	
Date 2/1/2016 Time 13:50 Agency Performing 9	Survey HDR
Data Recorder JV (24 hr. clock) Survey Team JV,	MA
Site Information	
GPS Data	
Longitude -121.219503 Latitude 38.309463	
GPS HDOP 1.49 Loc. of GPS Point above outlet	PM
Hydrologic Information	rian at site
<u> </u>	rce: sign at site
Basin Herald Quad Name (7.5')	GALT
USGS Hydrologic Unit LOWER_COSUMNES- LOWER_MOKELUMNE CalWater Unit HA	Lower Cosumnes-Dry
CalWater Unit HU NORTH VALLEY FLOOR CalWater Unit HSA	Herald
Natural Stream Channel?	
Is there a definable channel upstream of culvert?]
Is the primary function for storm water runoff or road drainage?: Yes]
Is the waterway a concrete-lined flood control channel?]
Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 feet?	
Is the stream gradient < 20%?	
Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhead)	
Central Valley Spring-Run Chinook	
Central Valley Fall_Late Fall-Run Chinook	
Central Valley Steelhead Historic Anadromous Reach?	
	No
Has the stream reach upstream of the crossing supported an anadromous fish population? Source Aerial imagery; no upstream drainage basin	No No
Crossing Type	
Crossing Type Culvert ID	
General Description: concrete double box culvert	
Photos	
3.1 Upstream Looking Upstream - Photo I SAC_104_5.44_3.1_2-01-2016	
3.2 Upstream Looking Downstream - Photo I SAC_104_5.44_3.2_2-01-2016	
3.3 Downstream Looking Upstream - Photo ID SAC_104_5.44_3.3_2-01-2016	
3.4 Downstream Looking Downstream - Photo ID SAC_104_5.44_3.4_2-01-2016	
Detailed Survey Required?	
Detailed Survey Required?: No	

County: Sacramento Route: 104 Postmile: 5.44 Survey Date: 02/01/2016





Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION						
County: SAC	Route:				PM: 5.78	
	Survey I	nformation				
Date 2/1/2016 Time 12	2:05 Ag	jency Performin	ng Survey	HDR		
Data Recorder JV (24 hr	r. clock) Su	ırvey Team	Jv, MA			
		ormation				
		S Data				
Longitude -121.214463 Latit		38.312369				
GPS HDOP 2.22 Loc.		bove outlet		PM		
	Hydrologi	c Information				
Stream Name Griffith Creek			Source: sign	n at site		
Basin Herald	Quad	Name (7.5')	GALT			
USGS Hydrologic Unit LOWER_COSUMNES- LOWER_MOKELUMNE		ater Unit HA	Lower Cosum	nes-Dry		
CalWater Unit HU NORTH VALLEY FLOO		ater Unit HSA	Herald			
	Natural St	ream Channel?				
Is there a definable channel upstream of culvert?		Yes				
Is the primary function for storm water runoff or road	d drainage?:	No				
Is the waterway a concrete-lined flood control channel.	nel?	No				
	Potential Fish	n Bearing Stream	n?			
Does the site contain an active channel width >2 fe	et?	Yes	7			
Is the stream gradient < 20%?		Yes				
	Salmon	id ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelh	ead)					
Central Valley Spring-Run Chinook						
Central Valley Fall_Late Fall-Run Chinook						
Central Valley Steelhead		<u> </u>				
		dromous Reach?				
Has the stream reach upstream of the crossing sup			-			
Source Tributary to Cosumnes River, Histo		of Pacific Salmor	iius in the Central	valley (NOAA 2005)		
Crossing Type bridge w/o potential passage		ID				
General Description: Bridge	CONSTIANTS	טו				
озлога возоприон.	DI.	notos				
3.1 Upstream Looking Upstream - Photo I	SAC_104_5.78_3.1					
3.2 Upstream Looking Downstream - Photo I	SAC_104_5.78_3.1					
3.3 Downstream Looking Upstream - Photo ID	SAC_104_5.78_3.3					
3.4 Downstream Looking Downstream - Photo ID	SAC_104_5.78_3.4					
Detailed Survey Required?						
Detailed Survey Required?: No		- 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,				

County: Sacramento Route: 104 Postmile: 5.78 Survey Date: 02/01/2016

Upstream Looking Upstream

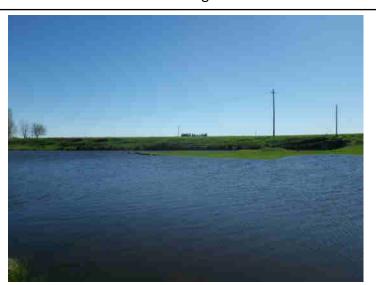
Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION						
County: SAC		Rou	ıte: 104			PM: 8.30
		Surv	vey Information			
Date 2/1/2	016 Time 1	1:55	Agency Perform		HDR	
Data Recorder	V (24 h	r. clock)	Survey Team	JV, MA		
		Sit	e Information			
			GPS Data			
Longitude	-121.17633 Latit	ude	38.3331	9		
GPS HDOP	1.72 Loc.	of GPS Point	above outlet		PM	
		Hydi	ologic Information			
Stream Name	unknown	_		Source:		
Basin	Herald		Quad Name (7.5')	GALT		
USGS Hydrologic Unit	LOWER_COSUMNES-		CalWater Unit HA	Lower Cosu	mnes-Dry	
CalWater Unit HU	NORTH VALLEY FLOO		CalWater Unit HSA	Herald		\neg
Sara.or Offict IO						
In thora a definition	annol unatropy of sub- 12	Natu	ral Stream Channel	r		
	annel upstream of culvert?	alaasta oo	Yes	=		
	for storm water runoff or road	_	No No	<u> </u>		
Is the waterway a con-	crete-lined flood control chan		No			
		Potentia	al Fish Bearing Stre	eam?		
Does the site contain	an active channel width >2 fe	et?	Yes	_		
Is the stream gradient	< 20%?		Yes			
			almonid ESU/DPS			
	ho Salmon) or DPS (Steelh	ead)				
Sacramento Winter-R						
Central Valley Spring-						
Central Valley Steelhe	au	Historia	: Anadromous Read	:h?		
Has the etrees as a	unstroom of the arcasing				nown 1	
	upstream of the crossing sup ary to Cosumnes River water					DAA 2005)
THOU	,		Crossing Type		(IV	. = * * * /
Crossing Type	Culvert	1	ID			
General Description:						
			Photos			
3.1 Upstream Looking	Upstream - Photo I	SAC_104_8.3	30_3.1_2-01-2016			
	Downstream - Photo I		30_3.2_2-01-2016			
	ing Upstream - Photo ID	-	30_3.3_2-01-2016			
3.4 Downstream Lool	sing Downstream - Photo ID		30_3.4_2-01-2016			
		Detailed	d Survey Requi	red?		
Detailed Survey Requ	ired?: Yes	7				

RECONNAISSANCE SURVEY INFORMATION County: SAC Route: 104 PM: 8.30 **Access Information** Land Ownership: Upstream private Owner(s) Downstream private Owner(s) Accessible from road? Upstream? Yes Limitations Yes Downstream? Limitations **Vegetation Removal Required?** Upstream? No (If "Yes", comment and take photograph) Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID Comments Maintenance Assistance Required? Upstream? (If "Yes", comment and take photograph) Photo ID No Downstream? (If "Yes", comment and take photograph) Photo ID Comments **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVERT Is culvert diameter > 60"? No Can you see all the way through the end of the culvert? No

Report Date 03-15-2016

Can you feel a breeze through the culvert?

County: Sacramento Route: 104 Postmile: 8.30 Survey Date: 02/01/2016

Upstream Looking Downstream **Upstream Looking Upstream Downstream Looking Upstream Downstream Looking Downstream**

RECONNA	ISSANCE SURVEY	INFORMATIO	ON		
County: SAC	Route: 104			PM:	8.84
	Survey Information				
Date 2/1/2016 Time 11:5	O Agency Perform	ning Survey	HDR		
Data Recorder JV (24 hr. cl	Survey Team	JV, MA			
	Site Information				
	GPS Data				
Longitude -121.16677 Latitude	38.33526	1			
GPS HDOP 1.93 Loc. of	GPS Point above outlet		PM		
	Hydrologic Information				
Stream Name unknown		Source:			
Basin Herald	Quad Name (7.5')	GALT			
USGS Hydrologic Unit LOWER_COSUMNES-	CalWater Unit HA	Lower Cosumn	es-Dry		
LOWER_MOKELUMNE CalWater Unit HU NORTH VALLEY FLOOR	CalWater Unit HSA	Herald		\neg	
Salitate official profit where it is a	<u> </u>				
Is there a definable channel upstream of culvert?	Natural Stream Channel	,			
		<u></u>			
Is the primary function for storm water runoff or road di					
Is the waterway a concrete-lined flood control channel					
	Potential Fish Bearing Stre	am?			
Does the site contain an active channel width >2 feet?	Yes				
Is the stream gradient < 20%?	Yes				
	Salmonid ESU/DPS				
ESU (Chinook and Coho Salmon) or DPS (Steelhead	<u>) </u>				
Central Valley Street Pur Chinael	」 ¬				
Central Valley Spring-Run Chinook	」 ¬				
Central Valley Fall_Late Fall-Run Chinook	Historic Anadromous Reac	h?			
Her the street week western as of the second					
Has the stream reach upstream of the crossing suppor	ieu an anadromous fish populatioi	n? No			
Source	Crossing Type				
Crossing Type	ID				
General Description:	15				
	Photos				
3.1 Upstream Looking Upstream - Photo I	SAC_104_8.84_3.1_2-01-2016				
	SAC_104_8.84_3.2_2-01-2016		i		
-	SAC_104_8.84_3.3_2-01-2016		i		
	SAC_104_8.84_3.4_2-01-2016				
	Detailed Survey Requir	ed?			
Detailed Survey Required?: No	, , , ,				

County: Sacramento Route: 104 Postmile: 8.84 Survey Date: 02/09/2016

Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONN	AISSANCE SURVEY INFORMATION	
County: SAC	Route: 104	PM: 9.70
	Survey Information	
Date 2/1/2016 Time 11	:45 Agency Performing Survey HDR	
Data Recorder JV (24 hr.	clock) Survey Team Jv, MA	-
	Site Information	
	GPS Data	
Longitude -121.15510174 Latitu	de 38.33875633	
GPS HDOP 1.9 Loc. (of GPS Point above outlet PM	
	Hydrologic Information	
Stream Name unknown	Source:	
Basin Herald	Quad Name (7.5') GALT	
USGS Hydrologic Unit LOWER_COSUMNES-	CalWater Unit HA Lower Cosumnes-Dry	
LOWER_MOKELUMNE CalWater Unit HU NORTH VALLEY FLOOR	CalWater Unit HSA Herald	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	Yes	
Is the primary function for storm water runoff or road	drainage?: Yes	
Is the waterway a concrete-lined flood control channel	el? No	
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fee	et? Yes	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelhe	ead)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing supp Source	ported an anadromous fish population?	
·	Crossing Type	
Crossing Type Culvert	ID	
General Description: concrete triple bay box culver	t	
	Photos	
3.1 Upstream Looking Upstream - Photo I	SAC_104_9.70_3.1_2-01-2016	
3.2 Upstream Looking Downstream - Photo I	SAC_104_9.70_3.2_2-01-2016	
3.3 Downstream Looking Upstream - Photo ID	SAC_104_9.70_3.3_2-01-2016	
3.4 Downstream Looking Downstream - Photo ID	SAC_104_9.70_3.4_2-01-2016	
	Detailed Survey Required?	
Detailed Survey Required?: No		

County: Sacramento Route: 104 Postmile: 9.70 Survey Date: 02/01/2016

Upstream Looking Upstream

Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION								
County: SAC		ute: 104	Ordinal		PM: 9	.94		
	Su	rvey Information						
Date 2/1/2016 Time	11:30	Agency Perforr		HDR				
Data Recorder JV	(24 hr. clock)	Survey Team	JV, MA					
	S	ite Information						
		GPS Data						
Longitude -121.150721	Latitude	38.34304	4					
GPS HDOP 1.67	Loc. of GPS Point	above outlet		PM				
	Нус	drologic Information						
Stream Name Clay Creek			Source: si	ign at site				
Basin Herald		Quad Name (7.5')	GALT					
USGS Hydrologic Unit LOWER_COSUM		CalWater Unit HA	Lower Cosu	mnes-Dry				
CalWater Unit HU NORTH VALLEY		CalWater Unit HSA	Herald					
Carvater Office 10								
le there e defineble eksamal instruction of such		ural Stream Channel	7					
Is there a definable channel upstream of cul-		Yes						
Is the primary function for storm water runoff	_	No						
Is the waterway a concrete-lined flood control		No						
	Potent	ial Fish Bearing Stre	eam?					
Does the site contain an active channel widt	h >2 feet?	Yes						
Is the stream gradient < 20%?		Yes						
		Salmonid ESU/DPS						
ESU (Chinook and Coho Salmon) or DPS (Steelhead)							
Central Valley Spring-Run Chinook								
Central Valley Fall_Late Fall-Run Chinook								
Central Valley Steelhead	Listor	ic Anadromous Rea	ch?					
Hoo the atream wash waster as at the				20WD				
Has the stream reach upstream of the cross Source Tributary to Cosumnes Rive			'					
Source Tributary to Cosumnes Rive	, i iistoricai ariu Culle	Crossing Type	nomice in the Certific	ar valley (NOAA 2003)				
Crossing Type Bridge w/ potential pa	ssage constraints	ID						
General Description: bridge comprised of a	-		do not have flow; pa	ssage constarint is the	concrete bo	ottom		
Photos								
3.1 Upstream Looking Upstream - Photo I	SAC_104_9	.94_3.1_2-01-2016						
3.2 Upstream Looking Downstream - Photo	SAC_104_9	.94_3.2_2-01-2016						
3.3 Downstream Looking Upstream - Photo	ID SAC_104_9	.94_3.3_2-01-2016						
3.4 Downstream Looking Downstream - Ph	oto ID SAC_104_9	.94_3.4_2-01-2016						
	Detaile	ed Survey Requi	red?					
Detailed Survey Required?: Yes								

RECONNAISSANCE SURVEY INFORMATION County: SAC Route: 104 PM: 9.94 **Access Information** Land Ownership: Upstream private Owner(s) Downstream private Owner(s) Accessible from road? Upstream? Yes Limitations Downstream? Yes Limitations **Vegetation Removal Required?** Upstream? (If "Yes", comment and take photograph) SAC_104_9.94_3. Photo ID Comments 1_2-01-2016 Downstream? (If "Yes", comment and take photograph) SAC_104_9.94_3. Photo ID Comments 4_2-01-2016 Maintenance Assistance Required? No Upstream? (If "Yes", comment and take photograph) Photo ID Comments Downstream? No (If "Yes", comment and take photograph) Photo ID Comments **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVERT

Yes

Yes Yes

Report Date 03-15-2016

Is culvert diameter > 60"?

Can you see all the way through the end of the culvert?

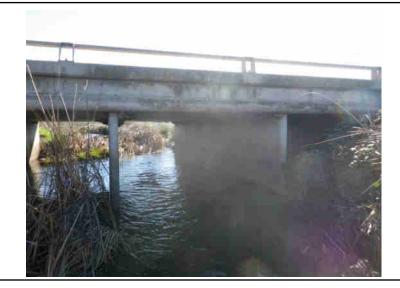
Can you feel a breeze through the culvert?

County: Sacramento Route: 104 Postmile: 9.94 Survey Date: 02/01/2016

Upstream Looking Upstream



Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



REC	ONNAISSANCE SURVE	Y INFORMAT	ION	
County: SAC	Route: 104			PM: 10.46
	Survey Informat	ion		
Date 2/1/2016 Time		forming Survey	HDR	
Data Recorder JV	(24 hr. clock) Survey Team	JV, MA		
	Site Information	n		
	GPS Data			
Longitude -121.14387	Latitude 38.34	8292		
GPS HDOP 1.7	Loc. of GPS Point above outle	t	PM	
	Hydrologic Informa	ion		
Stream Name unknown		Source:		
Basin Herald	Quad Name (7.5	GALT		
USGS Hydrologic Unit LOWER_COSU	MNES- CalWater Unit H		mnes-Dry	
LOWER_MOKE				
CalWater Unit HU NORTH VALLE				
	Natural Stream Char			
Is there a definable channel upstream of co		es		
Is the primary function for storm water rund	ff or road drainage?:	es		
Is the waterway a concrete-lined flood conf	rol channel?	lo		
	Potential Fish Bearing	Stream?		
Does the site contain an active channel wi	dth >2 feet?	es		
Is the stream gradient < 20%?	Y	es		
	Salmonid ESU/DF	'S		
ESU (Chinook and Coho Salmon) or DPS	(Steelhead)			
Central Valley Spring-Run Chinook				
Central Valley Fall_Late Fall-Run Chinook				
Central Valley Steelhead				
	Historic Anadromous F	Reach?		
Has the stream reach upstream of the cross	sing supported an anadromous fish popu	ation?	0	
Source				
	Crossing Type			
Crossing Type Culvert	ID			
General Description: concrete double box				
	Photos			
3.1 Upstream Looking Upstream - Photo I	SAC_104_10.46_3.1_2-01-20			
3.2 Upstream Looking Downstream - Photogram				
3.3 Downstream Looking Upstream - Photogram				
3.4 Downstream Looking Downstream - P	noto ID SAC_104_10.46_3.4_2-01-20	16		
	Detailed Survey Red	quired?		
Detailed Survey Required?: N	0			

County: Sacramento Route: 104 Postmile: 10.46 Survey Date: 02/01/2016

Upstream Looking Upstream

Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream

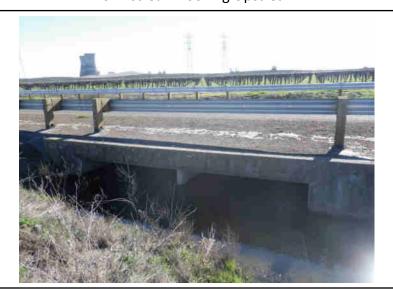


RE-	CONNAISSANC	CE SURVEY IN	NFORMAT	ION	
County: SAC	Rou	ute: 104			PM: 10.60
	Sur	vey Information			
Date 2/1/2016 Time		Agency Performir	ng Survey	HDR	
Data Recorder JV	(24 hr. clock)	Survey Team	JV, MA		
	Sit	te Information			
		GPS Data			
Longitude -121.14174	Latitude	38.349409			
GPS HDOP 2	.1 Loc. of GPS Point	above outlet		PM	
	Hyd	rologic Information			
Stream Name unknown			Source:		
Basin Herald		Quad Name (7.5')	GALT		
USGS Hydrologic Unit LOWER_COS		CalWater Unit HA	Lower Cosu	mnes-Dry	
LOWER_MOK		O=11M-t==11-11-11-10-1	Horald		
CalWater Unit HU NORTH VALL		CalWater Unit HSA	Herald		
		ral Stream Channel?			
Is there a definable channel upstream of o	culvert?	Yes			
Is the primary function for storm water run	off or road drainage?:	Yes			
Is the waterway a concrete-lined flood cor	ntrol channel?	No	<u> </u>		
	Potentia	al Fish Bearing Stream	n?		
Does the site contain an active channel w	ridth >2 feet?	Yes			
Is the stream gradient < 20%?		Yes			
		almonid ESU/DPS			
ESU (Chinook and Coho Salmon) or DP	S (Steelhead)				
Central Valley Spring-Run Chinook					
Central Valley Fall_Late Fall-Run Chinool	(
Central Valley Steelhead					
	Historic	Anadromous Reach	?		
Has the stream reach upstream of the cro	ssing supported an anadro	omous fish population?	N	0	
Source					
		Crossing Type			
Crossing Type Culvert		ID			
General Description: concrete double bo	x culvert; no postmile mar				
	I Tava	Photos		,	
3.1 Upstream Looking Upstream - Photo		0.60_3.1_2-01-2016			
3.2 Upstream Looking Downstream - Pho		0.60_3.2_2-01-2016			
3.3 Downstream Looking Upstream - Pho		0.60_3.3_2-01-2016			
3.4 Downstream Looking Downstream - I		0.60_3.4_2-01-2016			
	Detailed	d Survey Require	d?		
Detailed Survey Required?:	No				

County: Sacramento Route: 104 Postmile: 10.60 Survey Date: 02/01/2016

Upstream Looking Upstream

Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



		RECC	NNAISSAN	CE SURVEY	INFORMA [*]	TION		
County: SA	С			ute: 104			PM: 1	1.25
			Su	rvey Information	1			
Date 2/1/	′2016	Time	10:45	Agency Perform	ming Survey	HDR		
Data Recorder	JV		(24 hr. clock)	Survey Team	JV, MA			
			S	ite Information				
		101:		GPS Data				
Longitude		-121.12921	Latitude	38.35296	53			
GPS HDOP		2.2	Loc. of GPS Point	above outlet		PM		
			Hye	drologic Information				
Stream Name	unkno	wn			Source:			
Basin	He	erald		Quad Name (7.5')	GALT			
USGS Hydrologic Ur		OWER_COSUMI		CalWater Unit HA	Lower Cos	umnes-Dry		
CalWater Unit HU	=	OWER_MOKELL ORTH VALLEY		CalWater Unit HSA	Herald			
			Nat	ural Stream Channe	1?			
Is there a definable of	channel u	pstream of culve	ert?	Yes				
Is the primary function	on for sto	rm water runoff o	or road drainage?:	No				
Is the waterway a co	ncrete-lin	ned flood control	channel?	No				
			Potent	ial Fish Bearing Str	eam?			
Does the site contain	n an activ	ve channel width	>2 feet?	Yes				
Is the stream gradier				Yes				
				Salmonid ESU/DPS	<u> </u>			
ESU (Chinook and C	Coho Sal	mon) or DPS (S	teelhead)					
Central Valley Spring	g-Run Ch	ninook						
Central Valley Fall_L		Run Chinook						
Central Valley Steell	head							
				ic Anadromous Rea				
				Iromous fish population	<u></u>	known (NOAA 2225)		
Source Tribu	utary to C	osumnes River,	Historical and Curre		nonids in the Centi	ral Valley (NOAA 2005)		
One i T	- 10			Crossing Type				
Crossing Type General Description:			llvert: no nostrmile m	ID arker present				
Coneral Description.	. Concre	LO GOUDIO DOX CU	iivori, no postinine m	Photos				
3.1 Upstream Lookii	na Unstra	eam - Photo I	SAC: 104-1	1.25_3.1_2-01-2016				
3.2 Upstream Lookii				1.25_3.2_2-01-2016		<u> </u>		
3.3 Downstream Loc	_			1.25_3.3_2-01-2016			: :	
3.4 Downstream Lo				1.25_3.4_2-01-2016				
			Detaile	ed Survey Requi	red?			
Detailed Survey Red	quired?:	Yes						

RECONNAISSANCE SURVEY INFORMATION County: SAC Route: 104 PM: 11.25 **Access Information** Land Ownership: Upstream unknown Owner(s) Downstream unknown Owner(s) Accessible from road? Upstream? Yes Limitations Yes Downstream? Limitations **Vegetation Removal Required?** Upstream? No (If "Yes", comment and take photograph) Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID Comments **Maintenance Assistance Required?** Upstream? (If "Yes", comment and take photograph) Photo ID No Downstream? (If "Yes", comment and take photograph) Photo ID Comments **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVERT Is culvert diameter > 60"? No

Yes

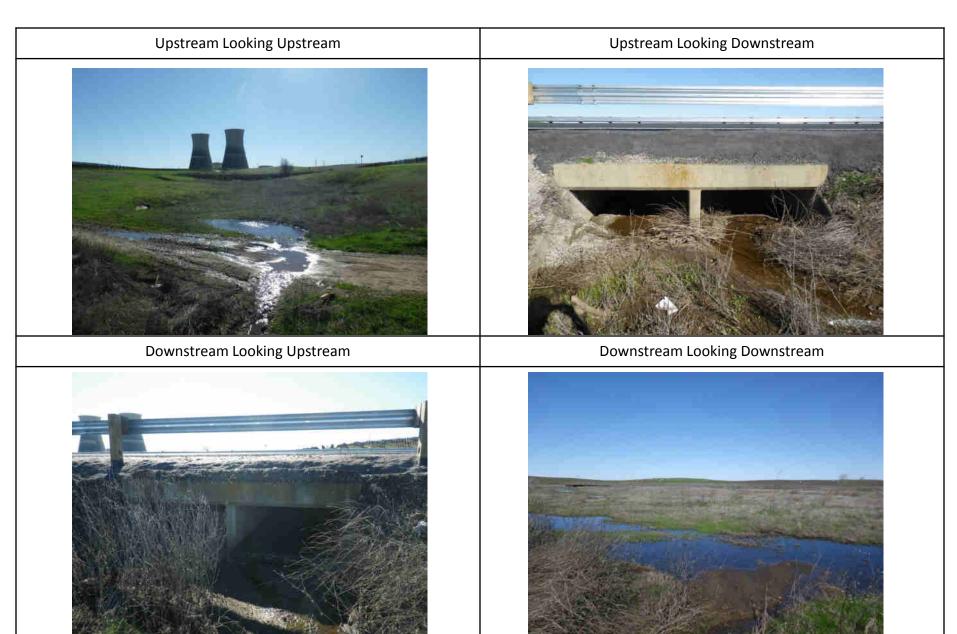
Yes

Report Date 03-15-2016

Can you see all the way through the end of the culvert?

Can you feel a breeze through the culvert?

County: Sacramento Route: 104 Postmile: 11.25 Survey Date: 02/01/2016



	RECONN	AISSAN	CE SURVEY	INFORMAT	ΓΙΟΝ	
County: SAC		Ro	ute: 104			PM: 11.78
		Sui	rvey Information			
Date 2/1/201	16 Time 10	:30	Agency Perform	ning Survey	HDR	
Data Recorder JV	(24 hr.	clock)	Survey Team	JV, MA		
		S	ite Information			
			GPS Data			
Longitude	-121.121446 Latitu	de	38.35324	4		
GPS HDOP	1.7 Loc. (of GPS Point	above outlet		PM	
		Нус	drologic Information			
Stream Name u	nknown			Source:		
Basin	Herald		Quad Name (7.5')	GALT		
USGS Hydrologic Unit	LOWER_COSUMNES-		CalWater Unit HA	Lower Cost	umnes-Dry	
CalWater Unit HU	NORTH VALLEY FLOOP	2	CalWater Unit HSA	Herald		
Caivvatei Offit FIO	NORTH VALLET FLOOR		ural Stream Channel	<u>-</u>		
Is there a definable chan	nnel unstream of culvert?	Nati	Yes			
	·	drainage?:	Yes	_		
	or storm water runoff or road	_	No	<u> </u>		
is the waterway a concre	ete-lined flood control chann		<u> </u>	2		
			ial Fish Bearing Stre	ain?		
	active channel width >2 fee	et?	Yes	_		
Is the stream gradient <	20%?		Yes			
			Salmonid ESU/DPS			
•	o Salmon) or DPS (Steelhe	ad)				
Central Valley Spring-Ru		<u> </u>				
Central Valley Fall_Late		=				
Central Valley Steelhead		Histori	ic Anadromous Reac	.h2		
Has the street rock	astroom of the areasing a				No	
Source	ostream of the crossing supp	onteu an anad	romous usa populatioi	1111	NO.	
			Crossing Type			
Crossing Type C	ulvert	1	ID			
General Description:						
			Photos			
3.1 Upstream Looking U	Jpstream - Photo I	SAC_104_1	1.78_3.1_2-01-2016			
3.2 Upstream Looking D	Oownstream - Photo I	SAC_104_1	1.78_3.2_2-01-2016			
3.3 Downstream Lookin	g Upstream - Photo ID		1.78_3.3_2-01-2016			
3.4 Downstream Lookin	g Downstream - Photo ID		1.78_3.4_2-01-2016			
		Detaile	d Survey Requir	ed?		
Detailed Survey Require	ed?: No	7				

County: Sacramento Route: 104 Postmile: 11.78 Survey Date: 02/01/2016



RECONNAISSANCE SURVEY INFORMATION								
County: S	SAC	1,100		ute: 104			PM:	12.76
			Sui	rvey Information	1			
Date 2/	/1/2016	Time	9:35	Agency Perform		HDR		
Data Recorder	JV		(24 hr. clock)	Survey Team	JV,MA			
			S	ite Information				
				GPS Data				
Longitude		-121.10414392	Latitude	38.3524756	88			
GPS HDOP		1.89	Loc. of GPS Point	above outlet		PM		
			Нус	drologic Information	1			
Stream Name	unko	own			Source:			
Basin	[Herald		Quad Name (7.5')	GALT			
USGS Hydrologic		LOWER_COSUM		CalWater Unit HA	Lower Cosu	ımnes-Dry		
CalWater Unit HL		NORTH VALLEY I		CalWater Unit HSA	Herald			
Caivvalei Uliil NC		INOINTH VALLET I		-				
la thora a define h	ala ahaar -	d upotroom of out-		ural Stream Channel	17			
		el upstream of culve		Yes				
		torm water runoff of	_	No				
Is the waterway a	a concrete-	-lined flood control		No				
			Potent	ial Fish Bearing Stre	eam?			
Does the site cor	ntain an ac	ctive channel width	>2 feet?	Yes				
Is the stream gra	adient < 20	%?		Yes				
				Salmonid ESU/DPS				
		Salmon) or DPS (S	steelhead)					
Central Valley Sp								
Central Valley Fa		III-Run Chinook						
Central Valley St	eeinead		Histori	ic Anadromous Rea	ch2			
Lloo the store	anal	room of the				nown		
				romous fish population		al Valley (NOAA 2005)		1
		3555		Crossing Type				
Crossing T	Гуре Culve	ert	1	ID				
		rete triple bay box	culvert					
Photos								
3.1 Upstream Lo	ooking Ups	stream - Photo I	SAC_104_1	2.76_3.1_2-01-2016				
3.2 Upstream Lo	ooking Dow	vnstream - Photo I	SAC_104_1	2.76_3.2_2-01-2016	·			
3.3 Downstream	Looking L	Jpstream - Photo II	SAC_104_1	2.76_3.3_2-01-2016				
3.4 Downstream	n Looking D	Downstream - Phot	to ID SAC_104_1	2.76_3.4_2-01-2016				
			Detaile	ed Survey Requi	red?			
Detailed Survey I	Required?	Yes						

RECONNAISSANCE SURVEY INFORMATION County: SAC Route: 104 PM: 12.76 **Access Information** Land Ownership: Upstream private Owner(s) Downstream private Owner(s) Accessible from road? Upstream? Yes Limitations Yes Downstream? Limitations **Vegetation Removal Required?** Upstream? No (If "Yes", comment and take photograph) Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID Comments **Maintenance Assistance Required?** Upstream? (If "Yes", comment and take photograph) Photo ID No Downstream? (If "Yes", comment and take photograph) Photo ID Comments **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVERT Is culvert diameter > 60"? Yes

Yes

Yes

Report Date 03-15-2016

Can you see all the way through the end of the culvert?

Can you feel a breeze through the culvert?

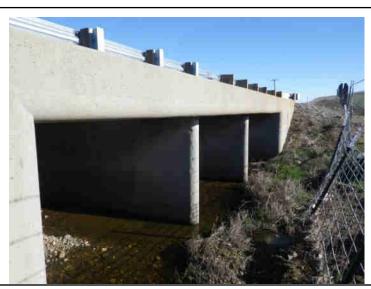
County: Sacramento Route: 104 Postmile: 12.76 Survey Date: 02/01/2016

Upstream Looking Upstream

Downstream Looking Upstream



Upstream Looking Downstream

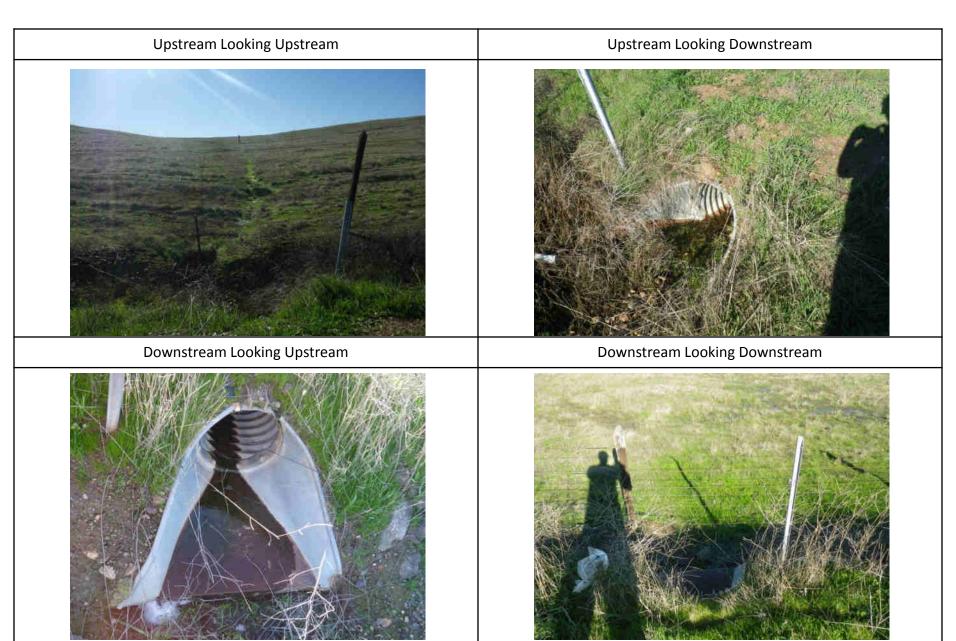


Downstream Looking Downstream



RECONN	AISSANCE SURVEY INFORMATION	
County: SAC	Route: 104	PM: 13.15
	Survey Information	
Date 2/1/2016 Time 9	Agency Performing Survey HDR	
Data Recorder JV (24 hr	. clock) Survey Team JV, MA	
	Site Information	
	GPS Data	
Longitude -121.097939 Latitu	de 38.355002	
GPS HDOP 1.37 Loc.	of GPS Point above outlet PM	
	Hydrologic Information	
Stream Name unknown	Source:	
Basin Herald	Quad Name (7.5') GALT	
USGS Hydrologic Unit LOWER_COSUMNES-	CalWater Unit HA Lower Cosumnes-Dry	
LOWER_MOKELUMNE		
CalWater Unit HU NORTH VALLEY FLOO	R CalWater Unit HSA Herald	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	Yes	
Is the primary function for storm water runoff or road	drainage?: Yes	
Is the waterway a concrete-lined flood control channel.	nel? No	
	Potential Fish Bearing Stream?	
Does the site contain an active channel width >2 fee	et? No	
Is the stream gradient < 20%?	Yes	
	Salmonid ESU/DPS	
ESU (Chinook and Coho Salmon) or DPS (Steelho	ead)	
Central Valley Spring-Run Chinook		
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing sup	ported an anadromous fish population?	
Source		
	Crossing Type	
Crossing Type Culvert	ID	
General Description: CSP culvert		
	Photos	
3.1 Upstream Looking Upstream - Photo I	SAC_104_13.15_3.1_02-01-2016	
3.2 Upstream Looking Downstream - Photo I	SAC_104_13.15_3.2_02-01-2016	
3.3 Downstream Looking Upstream - Photo ID	SAC_104_13.15_3.3_02-01-2016	
3.4 Downstream Looking Downstream - Photo ID	SAC_104_13.15_3.4_02-01-2016]
	Detailed Survey Required?	
Detailed Survey Required?: No		

County: Sacramento Route: 104 Postmile: 13.15 Survey Date: 02/01/2016



RECONN	AISSANCE SURVEY INFORMATION	
County: SAC	Route: 104	PM: 13.33
	Survey Information	
Date 2/1/2016 Time 9:	20 Agency Performing Survey HDR	
Data Recorder JV (24 hr.	. clock) Survey Team Jv, MA	
	Site Information	
	GPS Data	
Longitude -121.095065 Latitu	38.356145	
GPS HDOP 1.37 Loc. 0	of GPS Point above outlet PM	
	Hydrologic Information	
Stream Name unknown	Source: unknown	
Basin Herald	Quad Name (7.5') GALT	
USGS Hydrologic Unit LOWER_COSUMNES-	CalWater Unit HA Lower Cosumnes-Dry	
LOWER_MOKELUMNE CalWater Unit HU NORTH VALLEY FLOOP	R CalWater Unit HSA Herald	
	Natural Stream Channel?	
Is there a definable channel upstream of culvert?	No No	
Is the primary function for storm water runoff or road		
Is the waterway a concrete-lined flood control chann	· · · · · · · · · · · · · · · · · · ·	
To the waterway a consider-linea mood control challing	Potential Fish Bearing Stream?	
December 21 and 12 and		
Does the site contain an active channel width >2 fee		
Is the stream gradient < 20%?	Yes Solmanid EQUIDES	
ESU (Chinook and Coho Salmon) or DPS (Steelhe	Salmonid ESU/DPS	
Central Valley Spring-Run Chinook	eau)	
Central Valley Fall_Late Fall-Run Chinook		
Central Valley Steelhead		
Contrar variety Occombad	Historic Anadromous Reach?	
Has the stream reach upstream of the crossing supp		
Source	Section and amount of population.	
	Crossing Type	
Crossing Type Culvert	ID	
General Description: CSP culvert		
	Photos	
3.1 Upstream Looking Upstream - Photo I	SAC_104_13.32_3.1_02-01-2016	
3.2 Upstream Looking Downstream - Photo I	SAC_104_13.33_3.2_02-01-2016	
3.3 Downstream Looking Upstream - Photo ID	SAC_104_13.33_3.3_02-01-2016	
3.4 Downstream Looking Downstream - Photo ID	SAC_104_13.33_3.4_02-01-2016	
	Detailed Survey Required?	
Detailed Survey Required?: No		

County: Sacramento Route: 104 Postmile: 13.33 Survey Date: 02/01/2016

Upstream Looking Upstream

Downstream Looking Upstream



Upstream Looking Downstream



Downstream Looking Downstream



RECONNAISSANCE SURVEY INFORMATION									
County:	SAC			ute: 104				PM:	13.38
			Sur	vey Information					
Date 2	2/1/2016	Time	9:00	Agency Perforn	ning Survey		HDR		
Data Recorder	JV		(24 hr. clock)	Survey Team	JV, MA				
			Si	ite Information					
				GPS Data					
Longitude		-121.094487	Latitude	38.35640	1				
GPS HDOP		1.46	Loc. of GPS Point	above outlet			PM		
			Нус	drologic Information					
Stream Name	unk	known			Source:	unknown			
Basin		Herald		Quad Name (7.5')	GALT				
USGS Hydrolog	gic Unit	LOWER_COSUM		CalWater Unit HA	Lower C	osumnes-Dry			
		LOWER_MOKELU		0-114/	11212				
CalWater Unit F	HU	NORTH VALLEY F	-LUUK	CalWater Unit HSA	Herald				
			Natu	ural Stream Channel	?				
Is there a defina	able channe	el upstream of culve	ert?	Yes					
Is the primary fu	unction for	storm water runoff o	or road drainage?:	No					
Is the waterway	a concrete	e-lined flood control	channel?	No					
			Potenti	ial Fish Bearing Stre	am?				
Does the site of	ontain an a	ctive channel width	>2 feet?	Yes					
Is the stream gr	radient < 20)%?		Yes					
			S	Salmonid ESU/DPS					
ESU (Chinook a	and Coho S	Salmon) or DPS (S	teelhead)						
Central Valley S	Spring-Run	Chinook							
Central Valley F	Fall_Late Fa	all-Run Chinook							
Central Valley S	Steelhead								
			Histori	ic Anadromous Read	h?				
				romous fish populatio		Jnknown			
Source	Tributary to	o Cosumnes River,	Historical and Currer	nt dist. Of Pacific Saln	nonids in the Ce	entral Valley (N	NOAA 2005)		
				Crossing Type					
	Type Cul			ID					
General Descrip	ption: con	crete double box cu	Ivert						
				Photos					
3.1 Upstream L				3.38_3.1_02-01-2016					
	_	wnstream - Photo I		3.38_3.2_02-01-2016					
	_	Upstream - Photo II		3.38_3.3_02-01-2016					
3.4 Downstrea	m Looking	Downstream - Phot	o ID SAC_104_1	3.38_3.4_02-01-2016					
			Detaile	d Survey Requir	red?				
Detailed Survey	v Required	?: Yes							

RECONNAISSANCE SURVEY INFORMATION County: SAC Route: 104 PM: 13.38 **Access Information** Land Ownership: Upstream private Owner(s) Downstream private Owner(s) Accessible from road? Upstream? Yes Limitations Yes Downstream? Limitations **Vegetation Removal Required?** Upstream? No (If "Yes", comment and take photograph) Photo ID Comments No (If "Yes", comment and take photograph) Downstream? Photo ID Comments **Maintenance Assistance Required?** Upstream? (If "Yes", comment and take photograph) Photo ID No Downstream? (If "Yes", comment and take photograph) Photo ID Comments **Confined Space Assessment** If answer is "No" to any of the questions below, site must have confined spaces equipment for surveying. DO NOT ENTER CULVERT Is culvert diameter > 60"? No

Yes

Yes

Report Date 03-15-2016

Can you see all the way through the end of the culvert?

Can you feel a breeze through the culvert?

County: Sacramento Route: 104 Postmile: 13.38 Survey Date: 02/01/2016

Upstream Looking Upstream Upstream Looking Downstream **Downstream Looking Upstream Downstream Looking Downstream**



